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Current Notes

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April 1989

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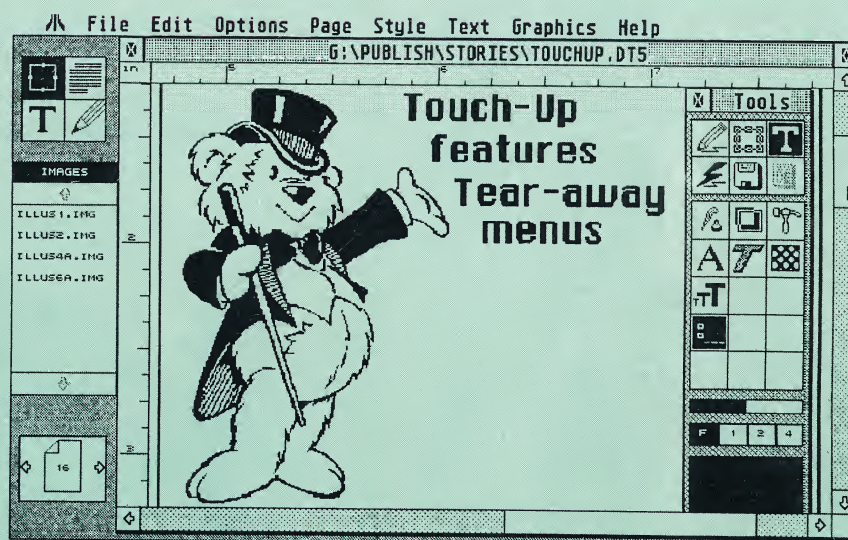
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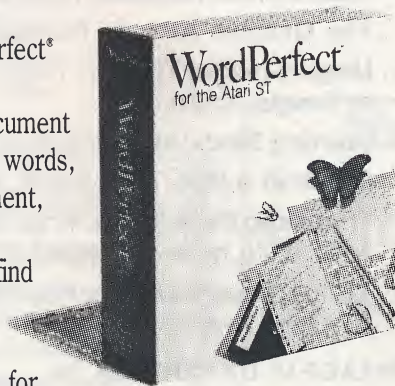
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ATARI DESKTOP PUBLISHING

Current Notes is produced on an Atari **Mega ST4** with an Atari **SLM804 Laser Printer** using Time-works Desktop **Publisher ST**. Some artwork is scanned in using the **Navarone Scanner** and some ads are produced with **Calamus** or **PageStream**.

TIME TO RENEW????

Check your mailing label. If you see an **8904** (4th month of 1989, i.e. April!) on the first line, then this is your **last issue** of CN. Get your renewal in right away to be sure you do not miss any issues. (If you see an **8905** or **8906**, your subscription will soon be ending. Please try and renew early---it is a big help to us.



From the Editor's Desk:



In the course of duties in my non-Atari job, I often have to travel to conferences or visit various companies or government agencies. As you might expect, management would like to see some kind of trip report when I return to work. However, the fact is, after being gone for awhile, things pile up on my desk and it is difficult to find the time to compose these reports. Often, they simply don't get done.

Just prior to my going on yet another trip, this time to visit some high-tech firms in California, I received in my Current Notes mailbox a "letter to the editor" that the author said he was composing on his laptop PC while he flew back from California. It wasn't a big, expensive or fancy laptop, but, as the author noted in his letter, it did get the job done. That gave me an idea. Why not get a small, inexpensive laptop for my trips and use some of the normally ample time available in hotel rooms to compose those reports I don't have time for when I get back in the office? I mentioned the idea to my boss, it was approved, and, after doing some instant research that evening, I went off and purchased a Tandy 1400LS (PC clone, two 3.5" drives, 740K, backlit screen, 13.5 pounds) on sale for \$1,300. Not a bargain by ST standards, but Atari didn't have a laptop yet and I needed something other people in the office could use as well.

During my trip, I wrote up a report every evening. I even had some extra time in the airport on Friday night and was able to pull out my laptop and finish writing about Friday's activities before I got on the "red-eye" to return to Virginia.

I wanted to have my report ready when I walked in Monday morning. So, that weekend, I saved my word processing file in a straight ASCII format, took the PC disk from my Tandy, popped it into my Mega, and tried reading the report into *WordPerfect*. It worked like a charm! Used *WordPerfect* to check out the spelling, and then flowed the text into *Publisher ST* where I formatted it for double columns and put in some fancy titles and subheads. Since I happened to have this nifty Atari laser printer attached to my Mega, I used it to produce a nice-looking "desk-top" published report. That's what I delivered when I walked into the office Monday morning. Needless to say, the report had the desired impact. Management figured (jokingly) that the laptop had already paid for itself.

I tell this story for two reasons. One is that Atari will shortly have a laptop and Atari owners who want to take advantage of a computer when they travel will be able to take along something they are comfortable with. The other reason is to highlight the fact that I was able to easily integrate my PC output with my ST and this is, perhaps, the more important point.

In this issue, John Barnes gives us a look at the latest version of *dBMAN*. This is a *dBASE* clone. It is available, of course, on the ST, but it is also available on the IBM PC. I ordered the IBM version so I could have a database program at work that was exactly the same as the database program I use at home on my Atari. Programs written on my Atari can then be read and used with *dBMAN* on the IBM and vice-versa. I loaded the IBM version on my PS/2 at work and tried accessing a *dBASE* database I had. Worked perfectly. So, with *dBMAN* I can access and use databases and programs written on the PC for *dBMAN* or *dBASE* as well as use the very same programs on my Atari.

Consider another case in point. In his review of Prospero C, Andrzej Wrotniak discusses an added bonus for Prospero programmers. Prospero languages (FORTRAN, Pascal, C) are available for the Atari and for the IBM PC. If you write a program on the Atari, all you need to do is recompile that program on the IBM PC and you have an application that runs on both machines. Prospero even takes this connectivity a step further by letting any of their languages call subroutines written in any one of their other languages.

One of the high-tech firms I visited has an operating system that runs on several different hardware platforms such as the Motorola 68030 and the Intel 80386. Programs written on one machine can be ported over to the other by simply transferring the source code and recompiling the application.

This is clearly the trend of the future. Application programmers will be able to develop software that, with very little effort on their part, can be ported over to a number of different hardware platforms. The market open to the programmer expands dramatically as does the amount of software available to computer owners.

As Atari owners, we already have a taste of this diversity. The Atari ST line already has its own graphical interface and machine-dependent software. But, the ST/Mega series can also run Macintosh programs using the Magic Sac or Spectre emulators or IBM PC programs using pc-ditto (and, soon, pc-ditto II). Using other emulators, Atari owners can even run CP/M programs or Atari XE/XL Basic programs. No other computer provides its owners with this diversity.

The above emulation is supported by the Motorola 68000 chip. Imagine what life will be like when the next generation Atari comes out based on a Motorola 68030 chip. Although plans now call for the first release to run TOS/GEM, I expect eventually to see a Unix operating system (matching one of the two leading variants on the market and masked from the user by a graphical interface) that allows us to run Atari GEM software, IBM PC software, or Macintosh software—all in one machine. Then, as well as **now**, this flexibility is a terrific selling point, Atari. Go for it!

— Joe Waters

April, 1989

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Letters to the Editor



Dear Editor,

When the Atari ST first came out, many of us thought that the Atari would become the best-selling personal computer. Just as the Commodore C64 when it first came out, the Atari ST represented state of the art technology at a cost that everybody could afford. Programmers naturally gravitated towards the ST because of its low cost and high performance. But the Atari ST has suffered from both a lack of software and poor market positioning. Its fate has been much the same as that of the Atari 400/800 (which was light-years ahead of the C64 in many ways): a great machine with little or no support. Those who bought Atari STs were quickly forced to band together through networks and user groups.

Talking to Atari users, we learned many wanted to see our best-selling air combat simulator, *FALCON*, converted to the Atari ST. They also wanted us to take full advantage of the machine's capability, rather than doing just a simple conversion job from the Macintosh or IBM in the way that many other titles have been converted.

Many of our competitors warned us that releasing an ST product would be a money loser. We were told that within weeks the product would be up on the bulletin boards and sales would fall to zero. We chose to disregard these comments and felt that a majority of Atari ST users really wanted new products and that the piracy problem only existed with a small handful of users. Many of us did not even want to put copy protection on the product because we feel that copy protection is inconvenient and a nuisance for the honest user. Copy protection is also expensive, adding

about \$0.50 per copy to our cost of production.

However, within thirty days of releasing *FALCON* ST, pirates had put the

product up on the bulletin boards—complete with diagrams for the code wheel protection, keyboard layout and mission maps of the product.

*****The real cost of such software piracy is not the lost \$49.95 sale, but rather the lost industry support for Atari ST.*****

Whether the machine format is an IBM, Amiga, C64, Apple II or Macintosh, piracy will always exist. A good software company accepts this fact and hopes that there are enough users out there who do not pirate to cover the cost of developing and publishing a product and allow for a reasonable profit.

Many ST owners argue that the ST has no more pirates than IBM or Mac. Many of us at Spectrum HoloByte believe this to be true. The problem is that the number of installed ST's is considerably smaller than that of the IBM or Macintosh, thus increasing the impact of piracy on sales. In addition, ST pirates seem better organized and piracy seems more accepted (or, should I say, tolerated) by ST users.

The cost of developing a product is quite high, especially on a complex machine like the ST. *FALCON* ST was converted and enhanced by a third party developer. A third party developer lives by the royalties earned on each product sold. Typically, a third party company receives around \$2 in royalties for each copy sold. Rowan Software, the company that converted *FALCON*, spent over \$40,000, and 24 man-months on the Atari ST version.

The Amiga version already has double the sales volume of the ST, even though Amiga *FALCON* has been on the market for only 6 weeks while ST *FALCON* has been

released for 9 weeks. When Macintosh and IBM versions were released, they sold four times the volume of product over the same period of time. Based on the current sales trend, the ST developer will be lucky to break even. A good-selling Amiga or Macintosh product will sell 20,000–40,000 copies in its first year. An IBM title will sell 40,000–100,000 copies, yet a top ST product would be lucky to sell more than 15,000. It will be very difficult to convince this development company to do another ST conversion when it could make triple the dollars programming in Amiga, IBM, or Macintosh product.

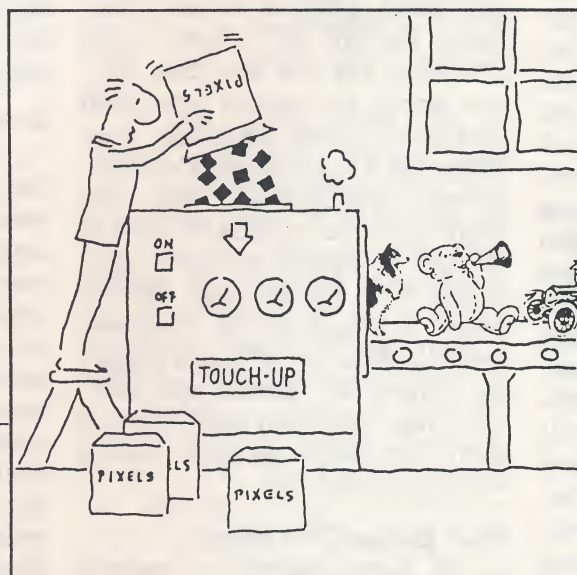
For publishers, it's also very costly to produce and market games. When development, marketing, advertising and production are included, it costs anywhere between \$250,000 and \$500,000 to introduce a new product. After retailers and distributors take their share of the purchase price, the publisher receives in the range of \$12 to \$20 per each copy sold to cover its cost and profits. In addition, publishers must support their products with new updates and offer telephone and network support for users.

There is no clear-cut solution to the problem of piracy. All we can ask is that if you like a program, buy it. Think of it as an investment. The more invested, the more and better titles you'll see for the ST. Help us send a message to the rest of the industry that there really is an ST market willing to buy good software. Spectrum HoloByte will continue to monitor the ST market and keep a close eye on what happens with *FALCON* ST. It's a shame that a few users can hurt a market as badly as the ST pirates can and deprive thousands of good ST users of the product support that other machines receive.

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ST UPDATE by Frank Sommers

A LEANER MEANER ATARI ?

Is the Hand Quicker Than the Eye?

"A spin off, a sale, a leveraged buyout or..." These were the words that appeared in Atari's press release and also in the 9 March "New York Times." Which shell housed the pea? What was it all about? The Federated Group, the chain of electronics stores, that Jack Tramiel had acquired a year plus ago to help turn Atari into a mega-sales electronic empire, was no longer an Atari wholly owned subsidiary. No, it is to be called, "A Discontinued Operation."

What does that mean? Well, for one thing, it means Atari can announce a profit picture for 1989 that no longer has Federated so far into Atari's wallet pocket that it's coming out its collar, i.e. per press release, "Net income for the year, before extraordinary items and discontinued operations was \$39.4 million...For the quarter, net income before extraordinary items and discontinued operations was \$9.3 million..." That would seem to be down only \$12 million or so for the last quarter **before discontinued operations** are put into the arithmetic. By our electronic pencil that suggests that Federated lost more than \$11 million for Atari in the last quarter alone, if you give any credence to the rumors that Atari had a net profit of less than \$100 thousand for the last quarter when everything was subtracted.

But real numbers are always hard to come by. Bookkeeping has become an art that even the great Italian masters would have admired. This you learn when you try to tie down the U.S. budget deficit where the swing is \$100 billion depending on with whom you talk.

However they plan to vaporize Federated, Atari management is to

be congratulated on swallowing a bitter pill and making the agonizing admission that Federated had been a bad move and then the equally hard decision to pull the plug before Federated pulled Atari down the drain along with it.

If Atari can get out from under without taking a "\$100 million write off" bath (because that would be talking "real money"), they might just be in position to start their "Spurt For The 90's", and double U.S. sales this year and have serious money for national advertising next year. If that happened, then along with it would come more reasonable expectations that Atari might carve out a place for itself in the U.S. computer market. A spot similar to, if not as large as, that which it enjoys in the European market, where the ST's and Mega's are viewed as "serious machine," with major attention paid them at such expositions as last month's Hannover Trade Fair.

Fair Blows The Wind

As if the decision to exorcise the Federated Devil was not enough good news, Consumer Reports of March announced that the ST was rated as their top choice. As a home computer it beat all others in price and performance, according to CR!

On the heels of that, into town blew Atari's Marketing Man, Mike Dindo and cohort. While they may have been surprised to find the Nation's Capitol and Metropolitan area was down to three Atari distributors, the dealers were even more surprised and delighted to spend time with real live Atari reps. Part of the good news was a pledge for an \$80,000 ad campaign in the Washington Post. The other portion was the "outstanding" laser printer promotion we cited last month. That is an SLM 804 laser printer without the

PostScript emulator, *UltraScript*, for \$1295, a full \$700 off list. That's a bigger "rebate" than you get from most sales-hungry auto dealers on a \$15,000 car! And. If you want your laser printer to act like "the big boys" for \$200 more you get the SLM 804 PSC(PostScript compatible). Not bad when you consider that the emulator normally sells for \$230. So if you have a Mega and are "going laser" in the near future, you may wish to consider this promotion.

And How is *UltraScript*?

Well, there is considerable confusion among those of us who haven't had an opportunity to use and review it (Imagen has a curious marketing policy of not issuing copies for magazine reviews with the exception of START), and the confusion revolves around how it works. Last month's readers will remember we speculated that it would be software and independent of the laser so previous owners could upgrade to it. But how does it function? Well, if your application has a PS capability, as *Publisher ST* does, then you put the UltraScript driver into the folder or directory with *Publisher ST*. (currently, it also works with *FleetStreet Publisher*, and *PageStream*, which has its own PS driver.) After preparing your DTP page, you save it to disk. It will then have a .PS extender, put on by the driver. Next, exit Publisher ST, load UltraScript and when it asks for a file, specify your DTP page, which will have been saved in the Publisher folder as Publisher.PS. Bingo, it will be sent to the laser printer.

How fast is it? How good is the quality of the output? How many fonts are there? What is the cost? Slow down. One at a time.

Speed—it is just about half as fast as straight Publisher ST. If your

page takes 45 seconds to load into memory and route to the printer in Publisher, then you can expect about two minutes with UltraScript. But that is about twice as fast or more if you use a NEC laser printer or a Macintosh Laserwriter Plus. So far, so good.

Quality — Fortunately, the first copy of UltraScript that Imagen sold, was sold to CN author, Milt Creighton. When asked about the quality, he made the droll comment, "It looks just like Publisher ST, but **without the jaggies!**" Graphics? Sharp, dark and clear. Purportedly *Calamus* has lost its edge, because the output from *Publisher ST* with *UltraScript* is fully equal to anything that *Calamus* can produce. So far, even better.

Cost — High end for the ST. At \$230 only a few products outrank it in cost. But the even sadder aspect, is that for that price you only get in effect two font families; one, *Lucida*, has six different faces, plus Hebrew and typewriter Hebrew, and symbols, along with one face for Courier. So is this real *PostScript*. The answer is no. Not until you buy the font package with seven font families equaling 32 Adobe type faces for another \$295 (or as individual disks, with one family per disk for \$100 each). Thus, in effect, UltraScript is a pricey \$525 which makes it the most expensive emulation/utility for the ST out there.

What's Coming And What's Not

Reportedly, Atari is preparing to release its own "multi-sync" monitor or at least a combination color and black and white monitor that with the flick of a knob will switch from one to the other. This is to be part of the array of hardware goodies they talk about bringing to market in 1989.

That speedy TOS 1.4, that loads *PageStream* in 1/3 the time the old TOS takes is not quite ready yet. A bug here, a bug there, that screws up the FAT table. But soon.

Similarly, with the mighty 68030

machine. Atari has less than one of them, i.e. currently they are not able to get programs to run with regularity on their prototype. This may be the reason for rumors that Atari will "wait" to introduce the "30" and instead come out first with the 68020.

But now, for us "hard drivers". What about a backup drive for our HD that uses either 20meg or 40meg cartridges to put your backup material on. Just pop it in when you need it. If it's fast enough you might even use it as a drive. Cost? A remarkable \$250. Cross your fingers.

For the music lovers among us a new family of music keyboards, designed by the Fleetwood Mac's. Prices will range from \$16,000 down.

In the update world, ISD of Canada is out with V. 1.09 of *Calamus*, which will permit importation of *WordPerfect* files. They will also be releasing 31 compugraphic font families for *Calamus* containing a total of 79 type faces, but at \$200 a disk for a portion of the group, it won't be cheap. But then neither will the ultimate upgrade of *DynaCad*. There will be a normal update to version 1.5 in June but prior to that May will see a more powerful version of the program, *DynaCad V. 2.0* that will bring the program square up against Auto Cad. It will be high end indeed at a price of \$1995.

Word Perfect Corp. has asked CN to announce that the new upgrade of WP for the ST will not be available as we announced last month by calling Ms. Robinson directly. Instead, warranted owners must contact Customer Service on the toll free number contained in their manuals, where they can verify your registration number and issue you the update. When to call? Not before 15 April. WP Corp. had hoped to have it out last month, but ran into difficulties.

For those who play the stock market there's *Stalk the Market*. Billed as the ultimate in stock market programs, Quidnunc Software of

Dallas, Texas has done it all, seemingly. There are provisions for real-time manipulations, storage of daily composite prices, or weekly or monthly as you choose, automated optimization of cash flow, plus graphic representations, cyclic analysis and buy and sell indicators and simulations. Need more. Check it out; it may also be there. (Quidnunc, P.O. Box 819081, Dallas, TX, 214-243-0663)

Mac Miscellaneous

The National Space Agency is scrapping their IBM PC's and moving to MAC II's with hard drives.

As everyone knows (I didn't) the new Mac's have "memory management" circuitry and thus can run several programs at a time. That is about the only significant thing the Mac can now do that the ST and Mega's can't. "What's the Mac that can do that?" you might ask. It's the Mac IIcx, announced last month, as well as the Mac IIx and the SE/30. For those of you who like to count, that's the sixth new Mac version since the Mac first hit the market (Mac Plus, Mac SE, Mac II, Mac SE/30, Mac IIx and now the Mac IIcx); we have had one since the ST, the Mega in two memory configurations. But what about the price? Well, fully configured with an 80 meg hard drive, 4 meg of memory, and a color monitor it's a whopping \$9,000. And a Mega similarly configured is \$3000, if you use a hard drive kit. A bit steep for so called multi-tasking, you might suggest.

Hat's Off Award

For the first time it goes to a CN author. To Bill Moes in Defiance, Ohio for creativity, perseverance and execution, in bringing us a new program review format, the 25-word mini review. Read Bill's piece on "The Best of Atari" and you'll sense what I mean. In a few words you discover quite a bit of the essence of each of the programs. And a tip of the hat to all of the 16 contributing CN authors.

7800 Game System

Although the 7800 has been kicking around for some time now, it has received little, if any, press from Current Notes. Lately, we have made a decision to pay some attention to this machine and its software. Many Atari 8-bit owners also have an Atari 2600 in their home. They even may be considering shelving the old Atari system for a Nintendo or Sega game machine. If our coverage helps steer them toward a 7800, all the better. If it convinces them that one of the non-Atari products is superior, then that is also fine. After all, CN does not subscribe to an Atari-for-Atari's-sake type of philosophy.

A second reason for our interest in this system has to do with the software support it is beginning to receive. As reported in the March issue, Atari is releasing or has released ten new games for the 7800. These include *Tower Toppler*, *Impossible Mission*, and *Crossbow*. In addition, some third-party companies have begun supporting the machine. Also, there are a number of games available already for the 7800 that are not issued for the 8-bits (e.g., *Winter Games*).

For these reasons, we have decided to give limited coverage to the 7800 and its software. A 7800 column will be included in the May (and perhaps the June) issue. This column may be the shortest running game in town, however. Unless our readers mail in reviews, or Atari loosens its grip on some of its precious cartridges, there will be no July coverage.

Atari, earlier on, cooperated by providing CN with a machine and two or three carts. However, despite repeated conversations with the company and its public relations firm, Smith Marketing, Inc., we have received no new software. No new XE carts have been forthcoming either. This shortage is even more critical. The two covered in this issue are the last of the lot.

If this situation is not resolved, we will have to withdraw our support for both sets of carts. If you have any influence with Atari, please contact them about this. After all, it is in their best interest to have their products reviewed in a national publication. Even a so-so notice is better than no notice at all.

Let's Hear From You

In the February issue, I asked readers to mail me their choices for software they would like to see available for the Atari 8-bits. To-date I have received two replies. The first respondent is an arcade game aficionado. He would like to see EPYX's *California Games*, Data East's *Speed Buggy* and Sega's *Out Run* converted. The second gentleman is interested in productivity software, including Electronic Arts' *Paperclip-Publisher* and Timeworks' *Word Writer*, *Swiftcalc*, *Data*

Manager, and *Partner*. He also is concerned that EA has discontinued the Atari version of *Paperclip*.

If any of those strike your fancy, or you have selections of your own, please write and let me know. Unfortunately, two letters and a willing editor do not a write-in campaign make.

Can You Help?

A number of weeks ago I received a letter from U.S. Army Staff Sergeant James Kushima. He is having difficulty setting up his Star Micronics (NX-10) printer with his 130XE. In Athens, Greece, where he is stationed, there is no Atari dealer.

"I mail ordered my printer and have gotten no support from the dealer," he states. "I also ordered a printer cable from ICD, but I think I need specific switch settings for the printer to function properly. The manual covers everything but an 8-bit Atari. Can you help?"

That is as specific as he gets. I called ICD, but they could not offer advice without better information. Although I tried many times, I could not reach the printer manufacturer. I am certain that many of our readers own this very popular printer. Perhaps some of you might be able to offer some advice to Sgt. Kushima. He may be reached by writing SSgt. James Kushima, PSC Box 702, APO NY 09223. Thanks, ahead of time, for your help.

New Products

Recently, a product called *Turbo-816* has been previewed in a number of publications. This is a 16-bit central processor system for the Atari 8-bits which, when installed, would replace the original 8-bit processor. According to reports, the product is compatible with most 8-bit hardware and software. *Turbo-816* will be sold as a kit for \$159.95 from DataQue, Dept. T816-C, P.O. Box 134, Ontario, OH 44862. A number of hardware devices are planned for the future if sales for *Turbo-816* are encouraging.

Innovative Concepts has introduced a real-time clock—*R-Time 8*—in a plug-in cartridge. At \$59.95, this product keeps the time and the date. *Spartados X*, *Spartados Construction Set* and a number of other DOS types are supported, as well as *Atari Basic*, *Basic XL/XE*, *Action!*, and *MAC/65*. *R-Time-8* may be ordered from Innovative Concepts, 31172 Shawn Drive, Warren, MI 48093, (313) 293-0730. Add \$3.50 for shipping and handling.

Keith Ledbetter, author of the *Express!* communication programs, has written the new *Express!*, to be released on cartridge in June. Written in 100% assembly language and including 64K of banked memory, this product includes features not available in other Atari 8-bit terminal programs. The cartridge will work with

most modems, including the 1030, the XM-301, and the new SX212, as well as the XEP80 80-column adaptor. Most DOS's are supported, as is the extra memory of the 130 XE or 800 XL upgrades. The program employs drop-down menus and supports features such as search/replace, cut and paste, macros, a variety of protocols, and a full-screen text editor. When available from Orion Micro Systems, 2211 Planters Row Drive, Midlothian, Virginia 23113, it will retail for \$69.95. Persons ordering before June 1 will receive a \$10.00 discount. Shipping and handling is \$4.00; Virginia residents should include 4.5% sales tax.

80-Column Word Processor

Micromiser Software, the company which produced the *Turbobase* program, has released an 80-column word processor--*Turboword*. To run *Turboword*, one must have the Atari XEP80 80-column adaptor and a monochrome or color monitor. The program (not copy protected) will work on any 48K Atari 8-bit.

The double-sided disk contains the word processor on one side and a spell checker on the other. There also are mail merge and macro features offered. In addition, *Turboword* supports many DOS's and RAMdisk arrangements.

The program is menu driven, although CONTROL KEY commands also may be employed. Many traditional options are available, but Search and Replace is not one of them. I also read somewhere that double-spaced printing was impossible. You might want to check on this before buying the program.

Fortunately, Micromiser appears to be very supportive. Already the company has produced an update and is sending a copy (free of charge) to anyone who has purchased *Microword*. Also, the word processor will be compatible with the company's 80-column versions of *Turbobase* and *Turbofile* (a simpler database).

Information from a variety of sources suggests that *Microword* is not the perfect program. Nevertheless, until something better comes along (and considering Micromiser's user support), XEP80 owners might consider checking *Turboword* out. At \$49 it does not sound like a bad buy.

If an XEP80 owner would like to review *Microword* (and its companion products), please get in touch with me. We have no idea how many XEP80 owners there are out there. This might help gather some support for the product and its users. Micromiser Software, 1635-A Holden Avenue, Orlando, FL 32809, (407) 857-6014.

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TOUCH-UP

Migraph's New Drawing Tool

Review by Milt Creighton



A Useful Product

Touch-Up by Migraph is a virtual page editing and creation program for bit-mapped, high-resolution monochrome images. Now some of you may know what that means, but I intend to write this review for those who don't. You see, Migraph has a habit of producing very useful products that don't fit into any single neat category. *Supercharger* is a case in point. *Touch-Up* is another. One way to describe *Touch-Up* is *Neochrome* or *Degas* for IMG files, but there is actually quite a lot more to it than that. You can work on images larger than the size of your screen and actually set the resolution of the output to match that of your output device, such as a printer. Naturally, you don't get something for nothing, so there are limitations I will get to later. *Touch-Up* also imports and exports a wide variety of graphic formats. It includes the ability to put text labels on your images using scalable outline fonts, and it has lots of useful and gee-whiz special effects. On top of all that, the current version appears to be bug-free, which is a remarkable accomplishment for a new release. Later revisions will include the ability to directly affect the output from scanners (brand names unidentified as yet).

The World of Touch-Up

Let's begin by describing what *Touch-Up* encompasses. First of all, *Touch-Up* only works on monochrome images—and bit-mapped images at that. Yes, you can import color images, but *Touch-Up* will convert them (the operation is called mapping) to monochrome images before permitting you to

edit them. In addition, *Touch-Up* does not work directly on GEM images like those produced by *Easy Draw*. GEM images are vector graphics which are made up of lines. Bit images are made up of dots. You can expand (or shrink) vector graphic images (within limits) without loss of resolution. Expanding bit-mapped images leads to loss of image quality through the introduction of blocky, stair-step lines (called jaggies). Shrinking the image leads to loss of image quality through loss of image data. *Touch-Up* edits or creates only bit-mapped IMG graphics files, though they can be converted and exported in other graphic formats.

The Dreaded GDOS Monster

Touch-Up is GDOS-based. Ah yes, the dreaded GDOS monster rears its ugly head once again. However, Migraph has tamed the beast more than a little with a clear description of how to install the program on every conceivable type of system. There is still some confusion possible, but you have to work at it a bit harder than with most GDOS-based programs. *Touch-Up* employs its own GDOS screen driver and uses none of the other GDOS screen or printer fonts listed in its own ASSIGN.SYS file. There are a number of printer drivers listed in the *Touch-Up* ASSIGN.SYS file including the Epson FX-80 and LQ-800, the Hewlett Packard Laser Jet (both 150 and 300 dpi) and the Atari SLM804 laser printer, but the GEM-SYS folder only contains the FX-80 and LQ800 drivers, so unless you intend to use either of those two

printers, you'll have to supply your own driver and put it in the GEM-SYS folder. If you intend to use a printer other than one of those listed, you'll have to edit the ASSIGN.SYS file as well. That brings up the question of system requirements. You can use either a color (low resolution is recommended because the pixels are square) or monochrome monitor, but you must have a least one double-sided disk drive and at least 1 megabyte of system memory.

Environmental Impact Statement

The 225-page manual for *Touch-Up* is clear and well-written. It includes some very nice tutorials along the way that illustrate the program's features, as well as glossary and reference sections that are quite complete for the most part. In fact, portions of the manual are duplicated (with a few minor differences to account for different modes of operation) from one section to the next. There is a very good reason for doing this as we shall see, but it serves to make the actual reading matter look more daunting than it really is. The only complaint I have is that there is no index! I generally rely heavily on an index after the first reading of a manual and I found the lack of one here to be a drawback. The only reason the absence wasn't a crippling deficiency is because it is partially offset by a very complete and detailed Table of Contents that has most of the functionality of an index.

Touch-Up is copy protected. I know, I don't like it either, but Migraph has taken pains to reduce the impact. The copy-protection is

in the form of a Program Security Key (PSK), commonly called a dongle by hackers. It is a device about an inch long that plugs into your parallel printer port (providing pass-through for the printer cable). The program software checks for the presence of the PSK periodically. The disks themselves are not copy-protected, so you can copy *Touch-Up* to your hard drive or make a back-up of the floppies. By the way, the PSK contains a lithium battery, so it is an active device. There is no way to the replace the battery either. Don't be concerned about this feature, however, as the battery has a life of eight years if the computer is not in use. When your system is in use, the PSK draws power from the computer through the printer port. I don't want to get into the merits of copy protection in this review. Suffice it to say that the PSK is unobtrusive. The one real reservation I have is that it may be possible to damage your system through careless installation. **Make certain the power to your system is off before installing the PSK.** Also, keep in mind the fact that the PSK protrudes an inch from your printer port. If you add a parallel printer cable the total protrusion is better than two inches. Be very careful about pushing your cpu back against a wall or you can crack the printer port and very possibly damage your computer.

Importing Images

Now that we've cleared away the environmental aspects, what about the program itself? With *Touch-Up* you can create high resolution monochrome images using the drawing modes or you can import color or monochrome images and edit them. You can load *Degas*, *Degas Elite*, IMG, *Mac-*

Paint, *Neochrome*, PCX and TIFF. There is also a separate conversion program included on the *Touch-Up* Master Disk (after serial #650) which permits the conversion of *PrintMaster* and *LabelMaster* clip art libraries to and from IMG format for loading into *Touch-Up* where they can be edited. Before you import an image or create a new one, you should consider the resolution of your output device. Mapping a color image with one of the more complex techniques available

consume up to 250K of system memory, though it is compressed before saving to disk.

Touch-Up Overview

Touch-Up has a number of modes of operation. It includes two drawing modes: the one entitled Drawing Mode is the more powerful of the two while the other (Lightning Mode) is faster and more like a standard paint program. Clip mode allows you to use most of the drawing commands and employ additional special effects on a portion of an image, Text mode is for placing text labels on graphics, and File Mode is the method by which you import and export graphics to and from the program and go to the printing module. Yes, *Touch-Up* has an OUT-PRINT module just like *Easy Draw* and it works the same way. There is a way to print from within *Touch-Up* but I have not been able to make it work. I am certain it has something to do with the way I have GDOS installed on my computer.

The Touch-Up Desktop

Figure 1 shows the basic *Touch-Up* screen. Commands can be entered either by way of the icons on the left of the screen or by accessing the drop-down menus at the top. There are also a number of keyboard shortcuts using the function keys and the <alternate> key in combination with another character. Most of the icons have equivalent menu entries. The icon menu is divided into five sections. The Mode icon pad at the top selects the mode of operation: Drawing, Clip, Text, Lightning, File, and Scan Mode (Scan mode is not currently implemented).

Under the Mode icon pad is the Tool icon pad. The icons here represent the functions which are active in each mode. As you would

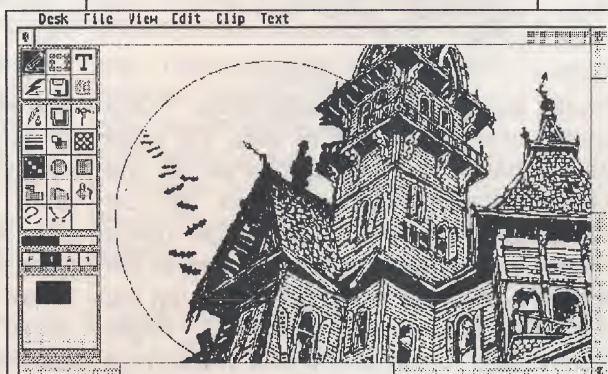


Figure 1

may exceed the resolution of your printer. Even if you have a laser printer with 300 dpi capability, it is possible to produce an image that exceeds your system RAM.

There are a number of techniques for mapping of color images. You can map to black all, most, or some of the colors. You can employ Floyd-Steinberg (F-S) or Burke algorithms for imitation of colors in monochrome images. Migraph has not ignored the auto-mapping techniques of *Supercharger* either. There are auto- and table-mapping choices in 2x2 and 4x4 matrices and your choice of two different kinds of dithering techniques. Naturally, you have to keep in mind the effect on the image of creating a 4x4 matrix for each pixel of the original. The image size will expand accordingly. For example, a low-rez 320 x 200 full-screen color image will map to 1280 x 800 if you employ 4x4 mapping. The resultant image will

expect, the tools (and the icons) change from mode to mode. It would have been nice if there had been a text entry somewhere on the screen to help identify the icons while you are learning the program. *Calamus* uses this technique to great effect.

Under the Tool pad icon are the color buttons to set the pen, line, and pattern colors. Beneath that is the Zoom indicator which allows you to work with the entire image on the screen at once or at x1, x2, or x4 magnification-levels. There are a couple of restrictions to keep in mind relative to the zoom-level. The Pen drawing tool doesn't work at Zoom Full and Lightning mode can only use magnification level 1. The Locator box describes the size of your work area relative to the size of the image and permits you to slide the black rectangle over the image to quickly move your work area from one part of an image to another.

Drawing Mode

Drawing mode includes an Ink-well icon to set the color of the pen and patterns. The choices are black or white for patterns and black, white, or "opposite" for the pen.



Figure 3

The "opposite" command means that if you begin your drawing on a black color, the pen color will be white and vice versa. The Writing Modes icon affects the way the object you are drawing interacts with the images already on the drawing surface. You can choose to cover the object underneath with

the current object, have the current object become transparent where it is white, or reverse the colors of the current image and have the resultant white areas become transparent. In the XOR mode the dark areas of the current object become white where they cross the image underneath and white areas turn black.

Among other things, the Miscellaneous Tools icon allows you to clear the page (takes a long time since all the memory buffers have to be cleared), invert the page (color invert), expand the clip area to the size of the entire page, and set the page and clip area. The "Page/Clip" command is one of the most significant in *Touch-Up* and you should understand its implications before you try to hack your way through the rest of the commands. There is nothing more frustrating than realizing the image you have just spent hours creating is useless because you failed to set the proper resolution.

Selecting the "Page/Clip" command brings up a dialog box which defines both the page and the clip area. It can be set to inches, centimeters, or pixels. If you load an image, its width and height are given in the units you selected. When the image you load is smaller than the default page size for high, medium, or low resolution pages you will see the page size displayed as well. When the image is exactly the same as the default page size or larger, *Touch-Up* will adjust the page size to match the image size. Both values will then be identical. This means you can load and edit an image larger than your screen size. You may expand or reduce the image

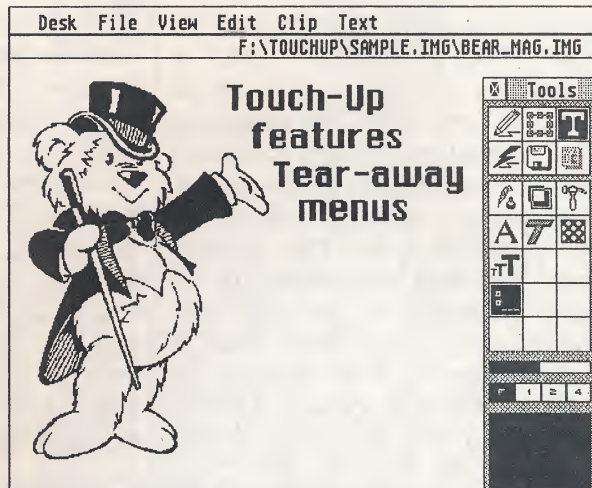


Figure 2

size while preserving the dpi setting by selecting new height and width values and then instructing the program to adjust the image to the new area. You can also wipe the work area before beginning work on a new page. Don't forget to set the resolution by choosing the proper dpi setting to match your output device. You **must** click on the DPI box before or after entering the new dpi values. If *Touch-Up* prevents you from creating images with the width and height you desire, chances are you have exceeded your system memory.

Other icons allow setting line width and style, shadowing (including offset), patterns (at 75,150, and 300 dpi), size of the pen point, ellipse (for circles and ellipses), boxes (for squares and rectangles), polylines, arcs and wedges, fill (for use with patterns), freehand sketching, and adjustable B-spline and Bezier curves.

Clip Mode

Clip mode allows you to select any portion of the screen (sizing the clip box) and then modify the image with all sorts of special effects. Command icons include Writing mode, Miscellaneous tools, Patterns, displaying or hiding the clip area, loading, copying or saving an image into and out of the clip area, stretching the clip area, cut-

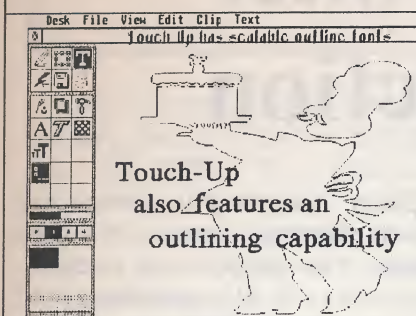


Figure 4

ting and pasting a clip area to and from a clipboard, and setting the clip box colors. You might find the tear-away menus useful here (see Figure 2). In addition, you can flip the image horizontally, vertically, or both. Some of you will get unanticipated results when you select this command. The culprit is *Turbo ST*. If you have trouble with the arrows in the first tutorial, turn off *Turbo ST* before using *Touch-Up*.

In Clip mode you can mirror images, rotate them (in 90 degree increments only), slant them, or process them. Processing commands include cleanup (removing stray dots from the clip area), outline (creates an outline of any black area in the image—see Figures 3 & 4) and mask which is used with fill patterns. Clip mode also includes an IMG file viewer for previewing IMG files before importing them into *Touch-Up*. You can automatically set the size of the clip area to correspond to the size of the file.

Text Mode

In Text mode you can create text captions and labels of up to 35 characters from the 10 outline fonts, supplied in a variety of timesteps. The letters can also be filled with patterns if they are large enough. The tools include Inkwell, Writing mode, Miscellaneous tools, Font selection, Typestyle, Pattern, Font height (in dots, not point-size), and keyboard entry of the text line. The manual suggests that you set all the attributes before typing the text into

the label, because once the text is placed on the page it cannot be modified. The fonts include Avant Garde, Bookman, Calligraphy, Chancery, Chicago, Computer, Helvetica, Palatino, Schoolbook, and Times. The quality of the fonts depends partly on the resolution and quality of your printer, but while they are of good quality, they are not as good as those produced by *Calamus*. The timesteps or attributes include bold, light, italics, backslant (reverse italics), outline, filled, underline, and fat. The height of the text line can vary from 1–999 dots, depending on your system memory. *Touch-Up* employs thin fonts for character sizes less than or equal to 30 dots. Above 30 dots, a thicker font is employed to accommodate the outline and fill options.

Lightning Mode

Lightning mode is a single screen-sized paint program, different from Drawing mode. In order to work on sections of the image outside the screen, you must exit Lightning mode, scroll the new area to the current screen, and then reenter Lightning mode. Lightning mode is faster than Drawing mode and, since all the work is stored in a buffer, there is an Undo command that will erase the previous operation or everything done during a session. Icons include Inkwell, Writing mode, Line Styles, Spray Brush Parameters (including spray size, shape and saturation levels), Patterns, Spray Tool, Ellipse, Box, Sketch, B-spline and Bezier curves, Fill, FatBits (for editing individual dots), Lasso (to select a portion of the screen to use as a brush), and Eraser. Many of the tools in Lightning mode can be used to create brushes. Simple brushes include ellipses, arcs, pies, and boxes. Complex brushes include sketched shapes, B-spline and Bezier curves, and Lasso.

File Mode

File mode includes icons for saving and loading full page IMG files, Miscellaneous tools, Loading and Saving other file formats, Patterns, Loading and Saving files into the Clip area, and an IMG Viewer. If you have 2 megabytes or more of system RAM you may print IMG files from within *Touch-Up*, but your printer driver must be resident to do so. As earlier stated, I was unable to make this feature work with my own GDOS set-up.

OUTPRINT works similarly to *Easy Draw* with a few additions. Like *Easy Draw*, *Touch-Up* saves files with a corresponding GEM file. You must load the GEM files from OUTPRINT in order to send a file to the printer. The device options include selecting from a number of paper sizes (including one that is user-defined) and the ability to select the output device ID number. You can also select portrait or landscape printing for the fill patterns and you can add a comment or remark to the file.

The Bottom Line: I guess the real question is whether you **need** all this capability. It doesn't come cheap; Migraph has placed a \$179.95 price tag on the package. That's enough to make the hobbyist gasp, but it's not over-priced for the business market—even for the Atari business market. What it comes down to is, if you have a scanner with decent resolution (150–300 dpi) and/or a printer with the same sort of resolution and you want the capability to create or edit correspondingly high resolution images, *Touch-Up* is a necessity. Nothing else will do it. No decent desktop publishing system can afford to be without it. Migraph has a reputation for producing high quality software and *Touch-Up* certainly won't detract from that reputation.



The Printer Connection

The Big Lie

Pretend for a moment we are completely computer illiterate (it's not hard if you try). We are in a business where a computer would be a highly desirable tool. After reading some of the major magazines, we draw the conclusion that an Apple Macintosh is in our future (assuming we somehow missed the Atari magazines).

We visit the local Apple Macintosh dealer to find the Mac SE would suit us just fine. In fact, we are told that in order to form a complete system we need to shell out another several hundred dollars to get an Apple Imagewriter. An Imagewriter is a printer custom built for the Macintosh, the dealer "informs us." It's the only printer that works with a Mac, sorry.

For The Informed

I know more than several Mac users that are (or were) completely unaware that a Mac can print to a standard Epson printer. In fact, a Mac can be tailored to print to many other non-Apple printers such as the HP Deskjet with very little effort. The trick lies in the software used as a "printer driver" by the System and Finder files.

Now we don't own a Mac, we own a ST. We are also very fortunate. Fortunate you say? How can

an ST emulating a Mac be better than a real Mac? Unplug your ST, flip it around and look at all the connectors. Do you see the one called Parallel Printer Port? This is the industry standard printer port. We can connect virtually any printer to the ST simply by plugging it in. Isn't life wonderful? This cannot be done on a Mac--NO parallel printer port exists.

Most likely you already own an Epson compatible printer, or possibly, the HP Deskjet. To get up and printing only requires a modification of the Finder/System and printer driver files. If you're fortunate enough to own the Atari Laser Printer and a program called UltraScript by Imagen, you can print your Mac output in postscript mode! (Next months' column will be dedicated to this connection).

Connecting an Epson

If you own an Epson compatible printer, you can purchase a program called *EpStart* by SoftStyle for approximately \$45. Make sure you are getting the latest version (latest I know of is 2.5). If you receive an earlier version, it may not work with Spectre. The old version does work with Magic Sac. The reason for this inconsistency is not due to emulation problems of Spectre, but rather the version of Finder/Systems you are using. The old version of *EpStart* will only configure the older versions of Finder/System files. If you own a Magic Sac try to use Finder 5.4/System 3.2 for best results. If you own a Spectre, you should use Finder 6.0/System 4.2 or the latest available.

The program works in a very straight forward manner. Use the

EpStart disk as your startup disk when booting Spectre into Mac mode. The program will automatically load and let you set the correct parameters for your Epson compatible, such as FX, LX, RX, etc... After settings are correct, eject the *EpStart* disk and insert your disk with the Finder/System you use as your startup disk. Click on MODIFY in the pulldown menus. Your startup disk will wizz around for a minute and be configured for Epson printing. Reboot and print away!

Connecting an HP Deskjet

If you own an HP Deskjet, the printer connection is even easier. There are several printer drivers for this ink jet printer available. My personal favorite is Printer Interface III by DataPak Software, Inc. The installation is trivial. Boot your Magic Sac or Spectre. After the Mac desktop appears, copy the HP DeskJet file from the software disk to your System folder. Now use the chooser desk accessory to "choose" this driver as the output device. That's it!

An Extra Note

If you own an old version of *EpStart* (before version 2.5), an upgrade policy is in effect. Mail the original *EpStart* disk plus \$18.75 (\$15.00 for update plus \$3.75 for shipping and handling) to the address below:

Phoenix Technologies Ltd.
SoftStyle
6600 Kalaniana'ole Hwy.
Honolulu, HI. 96825

I, personally, found SoftStyle quick to send the update. Until next month.

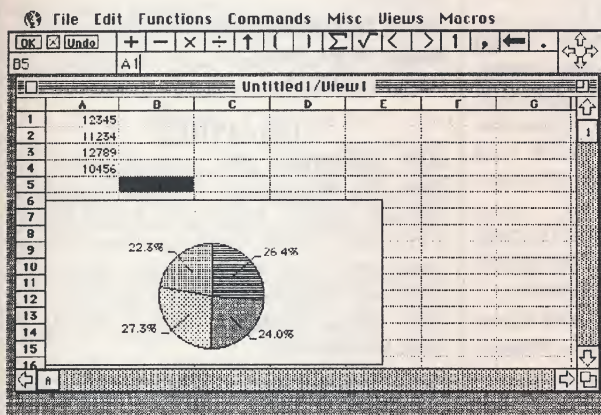
New Spectre CN Library Disks

by Jeff Greenblatt

This month Current Notes is releasing five new Spectre compatible (128K ROMs) PD or Shareware library disks. As always, please be sure to make your donation(s) to the author(s) if you like and use the files on these disks.

#S12D: Full Impact Demo.

A double-sided disk containing a fully functional demo (including printing) except for saving files. Full Impact is an extremely powerful spreadsheet program with even more features and the power of *Excel*. These features include over one half million usable cells, its own drawing tools, mixed fonts cell by cell, charts and spread sheets on the same page, and importing graphics from other programs.

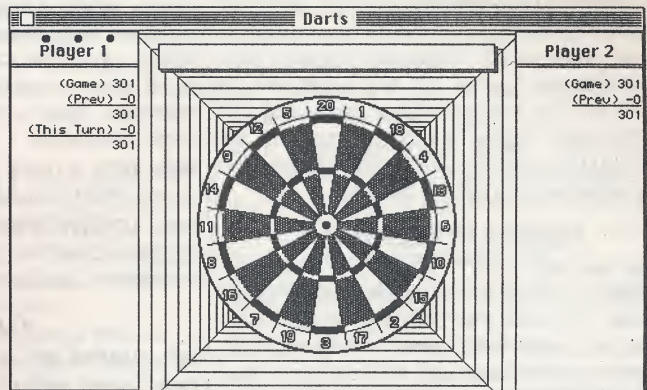


#S13D, **Stacks No. 2**, contains 9 HyperCard stacks on a double-sided disk. They are VisualStack (demonstrates the visual effects of HyperCard), Chem Flash Cards (learn about chemical compounds), DisplayPict 1.4 (an XCMD to display graphics), Indigo Gets Out (the adventures of a cat), AutoCat (catalogs disks), Animal Stack (lots and lots of animal clip art), Comic (a comic strip about the HyperCard manual), OnTheBeach (a hyper animation), and NameThatPlane (try to identify all types of aircraft).

#S14, **Utilities No.2**, contains 12 very useful utility files and assorted documentation for their use. They are Big DAs Runner (run large

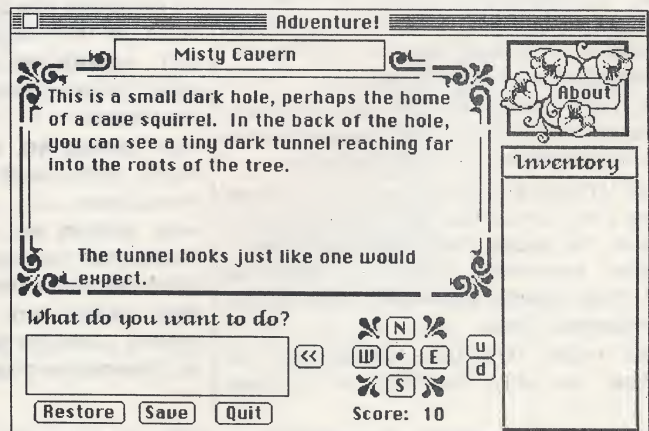
DAs under Multi-Finder), Mac][Icon (make your system file icons look like Mac][icons), DiskParam (saves all control panel settings including sound and mouse settings), Unstuffit DA 1.5.1 (a DA to unpack files archived with Stuffit), Auto Unstuffit Installer 1.5 (tag multiple files to automatically unstuff themselves using this utility), Interferon 3.1 (check for viruses), Unstuffit 1.5.1 (unstuff files quickly without using Stuffit), Repair 1.2 (repairs files that are infected with a virus), ICON Designer (edit existing and create new icons), Viewer 1.5.1 (a DA that displays what files are contained in a Stuffit file), SuperClock 3.1 (displays the time and optional date in the upper left hand corner of the screen), and ToMultiFinder (use this on boot up to choose between the Finder and MultiFinder).

#S15, **Games No.3**, contains five new fun games. They are Darts (plays assorted dart games with multiple player capabilities), Mac-Camelot (joust your way to earn the hand of the princess), BricklesPlus (more features in this new and improved version of this Break-out clone), Gravitation 4.0 (move objects around themselves and



others for visual effects), and SwampLord (a real estate strategy game).

#S16, **DAs No.1**, contains a mixed bag of 10 DAs and related documentation. They are NekoDA (a diversion, watch an animated cat chase your mouse), BezierDA (draws Bezier curves), SnapShotDA 1.2 (set the timer and take pictures of screens in MacPaint format like the ones shown here), Adventure! (a complete text adventure in a DA), VirusDetective (checks all your files for most of the common viruses), BreakKey (set your break key to any other key on the keyboard), SysErrTableDA (displays a list of all the Mac system errors and what they mean), PinUp ClockDA (an R-Rated clock), Freemem (displays available free memory even within applications), and New Scrapbook DA (much better than Apple's with more features).



These disks contain Mac programs for use with the SPECTRE/MAGIC SAC Macintosh emulators. Disks are \$4.00 each. Order from CN Library, 122 N. Johnson Rd, Sterling, VA 22170. Add \$1/6 disks for S&H.

Note: many of the Magic disk programs also work with the Spectre 128, but not all. We do know that the Adventure-type games now DO WORK with version 1.9 of Spectre with the SOUND turned on. Pinball Construction Set disks are a real blast with SOUND turned on.

DESK ACCESSORIES

M8: DAS NO. 1. 3DTT Game, Art Thief, Ascii, Bagels Game, Big Ben, Calculator, CopyFile, DA Tester 1.5, Delete File, Desk Acc. Tester, Desk-Zap 1.2, Eject&Reset, Extras, File Hacker DA, File Tools, Font Grapper+, Font Grapper3, Hex Calculator, HP 12c, MemScan, MemWindow, MerriMac BlackJack, miniWriter, MockTerminal, MockWrite, Moire, MW Count, Other 3.0, Puzzle, Reader, Rubik's Cube, Sampler, Scrapbook, Scientific Calculator, SetFile 3.3, SkipFinder, TheBox, Tiler 1.5, Trails, Transfer, TrapList, Utils, Word Count, Zoom Idle.

M18: DAS NO. 2. About Popup.txt, Alarm clock, Art Grapper+, Calculator+, Choose Scrapbook+, DA File, DA Tester 1.5, Disk Labeler, DiskInfo 1.45 + SICNs, Explorer, Gone Fishin', Hex Calc, Label Maker, MemWindow, MiniWRITER 1.34, Multi-Scrapbook, MW 4.5 Counter.DA, Popup 1.0, ProCount, ReadPrinter, Ruler, SFStartup 1.0, Skipfinder 6.1, Sleep, Stars 1.6, StarsII, Sysfonts, TeaTime, Timer.

M46: DAS NO. 3. 35 DAS: 3D Tic-Tac-Toe, A-Bus ID Poker, Abacus, Calendar, CheapPaint, Collapse, ConCode, Crabs2, DAFile, DAFont, Disp.Msg, Double Apple, Executive Decision, FatMouse, FixPic2.0, Flow, Fun House, Func Keys, Font, Idle, KeyMouse, KnockOut, Multi-Scrap, MW to Text, New MiniDos, Orig Clock, PaintDA, Poker, ProCount, Ruler, Tiler1.5, Time-logger2.11, Utilities, Wrap, WXModem, Sample It.

UTILITY DISKS

M2: TELECOM DISK NO. 1. BinHex 5.0, Free Term 1.8, FreeTerm.Doc, Kermit, Packit III (V1.3), Stuffit 1.0, TermWorks 1.3.

M3: UTILITIES NO. 1. DES, Font Doubler, MacDump, Mini Finder, Packit III (V1.3), Reverse Screen 1.0b1, RMover, Scan, Set File. SLICER, Version Reader 1.1, Write Stream.

M5: DISK LIBRARIAN. Disk Librarian V1.82A. Disk Librarian Doc, Short Doc. Contains listing of CN MAGIC LIBRARY. (Spectre Compatible)

M9: UTILITIES NO. 2. Bind Icons, Change Appl. Font, Convert Desk Acc., Desk Accessory Mover, File Hacker, FontDoubler, Index, Make-Screen, MicroFinder, PurgeIcons, RamASart 1.3, REdit, ResEd, SelectPaint, Show Version, User Interface Demo.

M11: PRINT UTILITIES. Coventry-12, Disk Labeler, Fast Eddie, Font Mover, Ink, MacWrite

4.5 to Text, miniWriter, MockWrite, Pica-10, ReadMacWrite, Walla Walla-9.

M27: UTILITIES NO. 3. Browse/Shazam!, Clocks: analog & digital, Edit, FEdit 3.0, launch, lazymenu, Magic Beep 1.0, Menu Editor, micro-Finder, Quick Dir, Quick Print, RamStart2.0+, Road Atlas, ShrinkToFit, SignEdit, SortMenu, SortMenu Code, SuperFinder4.0, TabsOut, Unpit, WayStation.

M28: RED RYDER 7.0. Red Ryder 7.0, Red's 7.0 Stuff, RR7.0 Macros, RR Docs.

M43: UTILITIES NO. 4. DiskDup+, MacSnoop 1.03, RamDisk+ 1.4, ResTools 2.01, Oasis 2.01 (HFS), Font Librarian (HFS), Switch.

GAMES

M4: GAMES NO. 1. Backgammon, Bash Big Blue, Curves, MacLuff, MacYahtzee, Maze 3D, Meltdown, Missile Command, Munch, Pepsi-Cas, Smile, Snow, Solitaire, Space Bubbles, Vax Runner II.

M6: GAMES NO. 2. Ashes, Black Box, Destroyer, HexPuzzle, Killer Kalah, MacPoly Demo, Office Attack, Point Symmetry Demo, Snake, Solitaire, Trophy List, Wall Game, Wheel.

M7: GAMES NO. 3. Ashes, Break the Bricks, Deep Ennui, Go, Mac Gunner, MacBugs, Mac-Command, MacYahtzee, Wiz Fire 1.1

M15: GAMES NO. 4. Alice, Amps 3.0(B2), Bricks, Canfield 2.0, Iago, Lets Get Tanked!, MacHeads, Nim, Space Attack, Third Dimension.

M20: GAMES NO. 5. Chase'Em, Crystal Raider, Daleks, Golf MacWay, Kill File, Kill, King, King.MacWrite, On-The-Contrary, StuntCopter1.2.

M21: GAMES NO. 6. Guess, Hacker's Contest, Hot Air Balloon, Match, Ramm1.0, Third Dimension, Trick-Track, Utaan Attack, Zero Gravity.

M25: GAMES NO. 7. Billiards, Cross Master Demo, Flash Cards, Hangman-9.0, MacLuff, Master Guess, Safari 1.0, Venn.

M30: GAMES NO. 8. Bowl-A-Rama, MacTrek 1.1, Mystery Box 1.0, Shots, Star Trek Trivia Quiz, Window Blaster 1.0.

M34: GAMES NO. 9. 1000 Miles, Asteroids, Cairo ShootOut!, Donkey Doo, Duck Hunt, Pente 1.0.

M45: GAMES NO. 10. Blackjack 4.0, Gunshy 1.0, Humpback, New Social Climber, Panic, Puzzle 1.0, Star Trek Trivia Quiz, VideoPoker.

M51: GAMES NO. 11. Bouncing Balls, Fire Zone, Mac Word Hunt 2.0, Out Flank, Risk and Word Search.

M53: GAMES NO. 12. 3D Checkers 2.0, Bills Casino, BMX-The Racing Game, HeloMath, Mouse Craps.

M58: GAMES NO. 13. Klondike 3.6, Space Station Pheta, Mac Concentration, Sitting Duck, Hot Air Balloon 2.1, Think Ahead+2.0.

M60: GAMES NO. 14. Golf Solitaire, Mac Football, Euchre 2.2, Gomoku, Pyramid, Checkers, Runaround and Macpuzzle 1.0.

M19: PINBALL CONSTRUCTION SET GAMES. Pinball Construction Set Player plus 12 Games: Apple, Black Hole, Face, KalinBall, Madonna, Minute-Mag, Patchwork Mess, Phantom, Pure-Gemme, Samurai, The Royal Pain, Wizards Lair. (Spectre Compatible)

M29: PCS GAMES NO. 2. Pinball Construction Set Player plus Games: Circus Circus, D & D, Diadora, Max, Merlin, Modern Mistress, Queston, The Royal Pain, Twilight Zone, Whazit. (SPECTRE COMPATIBLE)

ADVENTURE GAMES

M17: DUNGEONS OF DOOM 4.0. Graphic adventure game.

M23: VAMPIRE CASTLE. Graphic adventure game.

M24: DEEP ANGST. Graphic adventure game. 1 Mb ST only.

M31: BLACK WIZARD. Graphic adventure game by Richard Loggins.

M36: CASTLE OF ERT. Shareware graphic adventure game.

M40: HACK, Version 1.03. Game is similar to Rogue, includes manual with full docs.

M41: RADICAL CASTLE. Graphic/text adventure game.

M63D: MOUNTAIN OF MAYHEM.

M65D: DEEP ANGST II

M66: INTRUDER.

GRAPHICS

M10: GRAPHICS NO. 1. Amy, Artisto, ball demo, Big Ben, Brooke, Bugs, Curves, Display Message, Dragon, Fighting 51, Fourth Dimension, GARF, HotSex!, Liar's Club, Living Art, Max Headroom, Moire 3.0, Nightmare, Optical Illusion, Paint Grabber, Painter's Helper #1, Pattern*, Pisces, Rotations, Saddle, The Fourth Docs, ViewPaint 1.5.

M12: MACBILLBOARD. Chipmunks, Donald & daisy, Goofy At Bat, Announcement, Babe Ruth, Carroprint, Classic illusions, Escher, Escher Hands, MacBILLBOARD (MacPaint clone), Max, Mickey and Minney, mm, Quick Tour, T-Shirt. (Spectre Compatible)

M22: GRAPHICS NO. 2. BlowUp 3.0, BlowUp Notes, CalendarMaker 2.2.1, Dynamo, Graphic, MadMenus, Math21, Rays, Simutree, Spiro, Tree, Vanlandingham.

M26: GRAPHICS NO. 3. 3D Sketch, AniRama, Bin/Graphics, Brownian Motion, Control, Fractal Contours, Fractals, Icon Collector, Julia, Make-Paint, Melting Clock, Small View, ShapeArt, Star-Flight, Window Demo.

M47: GRAPHICS NO. 4. Cursor Designer, Earthplot3.0, Graphics2.0, Mondrian1.0, Motion-Maker2.0, Moving Finger, Wallpaper, Zoomation.

M57: GRAPHICS NO. 5. Contains 6 graphics-oriented applications or DAs: Micro Film Reader 1.4, Bomber, Iliana II, Preview, Super Ruler 1.1, and XVT-Draw.

FONT DISKS

(Spectre Compatible)

M13: FONT DISK NO. 1. Akashi, AlgBlurb, Algebra, Athens, Boxie, Dover, Geneva, Hood River, ImageWriter, LED, London, Los Angeles, Luxor, Mars, Monaco, Park Ave, Pica, Ravenna, Rome, Runes, San Francisco, Seattle, Steel Brush, Ultra Bodoni.

M14: FONT DISK NO. 2. Bookman, Courier, Coventry, Dali, Genevaa, Hebrew, Manteco, Shadow Box, Sri Lanka, Times, Walla Walla, and font display 4.6 w/docs.

M16: FONT DISK NO. 3. About Lachine, Alice, Avante Garde, Berkeley, Broadway, Camelot, Cartoon, Centura, Chancery, Eon, Exeter, Fallingwater, Fantaste Key, Fantaste!, Future, Ham, Helvitica, Hollywood, Lachine, Lineal, Madrid, Pittsburg, San Quentin, Silicon Valley, Stencil, Unicol plus DAFont2.da and SysFonts.da.

M32: FONT DISK NO. 4. Canberra, Chicago, Humanistic, Music, New Dali, Palencia Application, Palo Alto, Pioneer Shadow plus F/DA sorter and Font Tester.

M35: FONT DISK NO. 5. Beehive, Beverly Hills, Boise, Chicago, Courier, DeStijl, Ham, Happy Canyon, Helvitica, Mod. Chicago, Old English, Square Serif, Sri Lanka, Worksheet.

M42: FONT DISK NO. 6. 15 new fonts: Berlin, Boston II, Courier, Dorza, Highwood, MicroBoston, MiniBoston, New York, Palo Alto, Sparta, Stiletto, Symbol, Tatooine, Venice, Wartburg.

M44: FONT DISK NO. 7. 18 new fonts: 42nd Street, Aldous, Art Deco, Ascii, Blockbuster, Border, Clairvaux with docs, Coptic, Deep Box, Ivy League, Klingon, Las Vegas, Little Box, Madrid, Memphis, Minneapolis, Rivendell, Spokane.

M50: FONT DISK NO. 8. Alderney 9-48; Cairo 18; Cyrillic 12; Greek 10,20; Paint 18; Playbill 12,18,24; Rehovot 10,12,20,24; Runes 12,24; Washington 12; Zodiac 18.

M61: FONT DISK NO. 9. New Century 10-24, Helvetica 10-24, Columbia 9-24, Minneapolis 36, Creamy 10-24, Palatino 10-24, Detroit 24, and Zap Chancery 10-24.

M64: FONT DISK NO. 10. York, Paint, Miscpax, Icon, Cupertino, Arabic, Fallingwater, Schematic, Moscow, and Isengard.

M67: FONT DISK NO. 11. Cavanaugh, Icon2, Fletcher, Math-Greek, Toyland, Troyes, Memphis, Provo, Scan, Tombstone, Southbend, Klingon, Wall Street.

CLIP ART

(Spectre Compatible)

M33: CLIP ART NO. 1. AirCraft, Business, Car Logos, Cars & Trucks, Clip Art Demo, Disney, Eyeballs, Flowers, Misc, Seasons, Trees1, Trees2, ViewPaint 1.5.

M52: CLIP ART NO. 2. 27 files: Al&Jimmy, Americana, Arrows, Bigger Guys, Billboards, Borders, Cars, Cartoons, Cats, Celebrities, Egret, Famous People, Farm Animals, Good Guys,

Gorilla, Hopefuls, Little Guys, MacLectic Clip Art, More Little Guys, Presidents, Rain/Chef, Skier/Football, Skylines, Space/Race, Statues, Tennis/Running, Wine & Beer.

M55: CLIP ART NO. 3. 26 clip art docs in MacPaint format: Animals, arrows, books, business, calendar, computer, disk, files, geography, holiday, houses, icons1-6, mail, memo, misc1, misc2, money, music, office, people and symbols.

COMMERCIAL DEMOS

(Spectre Compatible)

M37: MAC-A-MUG PRO DEMO. Version 1.0. Create your own mug shots by combining a variety of different facial features.

M38: VIDEO WORKS PLAYER NO. 1. PD player for Video works animated screens. Includes 11 movies.

M39: DEMO DISK NO. 2. Demos of Anatomiser (learn human anatomy), DeskPaint (desk acc MacPaint clone), and SuperPaint (graphic program with both MacPaint and MacDraw features).

M54: DESIGN. Full working version of the program Design (no save feature). Includes 5 samples and full documentation.

M59D: DEMO DISK NO. 3. Demo version of Kaleidagraph and Geographics II. Double-sided disk.

M62: DEMO DISK NO. 4. Math Blaster and Blob Manager Demo.

HYPERCARD DISKS

(Spectre Compatible)

M48D: HYPERSTACKS NO. 1. Address, Databook, Fractal, Funy Day, Home Desk, HyperNews 1.2, HyperZoetropes, MacGallery, MacVermont #2, Notebook, Periodic Table, and ResEdit IPS. (Double-Sided)

M49D: HYPERSTAKCS NO. 2. Ear, Illusions, Passing Notes, Shipstack, Silly, and US States V2. (Double-Sided) NOTE M48 and M49 require HyperDA using 64K ROM Spectre or Magic Sac.

M56D: HYPERSTACKS NO. 3. Contains only 1 hyperstack, Atkinson's 786K Clip Art Stack, with 500 pieces of clip art. Disk is Double-sided and requires HyperDA when using 64K ROM Spectre or Magic Sac.

SPECTRE 128

Public Domain Library

Note: These disks require Spectre 128 (128K ROMs) and DO NOT work with 64K ROMs unless otherwise noted.

S1: MACWRITE 5.0 DEMO (Cannot print or save documents but can load and read doc files.)

S2: MACPAINT 2.0 DEMO (Cannot print or save files but can load and view and create them.)

S3D: RED RYDER 9.4 (DS disk) This is the last shareware version to be released before it

became a commercial product. One of the most powerful telecommunications programs available for the Mac. Full docs and utilities for batch downloading included.

S4D: ALDUS FREEHAND DEMO. (DS disk) A Videoworks II interactive demonstration of Freehand drawing program.

S5: GAMES #1: Banzai, Monopoly 4.0, ATC 4.0, Mines, New Daleks, Brickles 4.0

S6D: POWERPOINT DEMO (64K ROMS COMPATIBLE)(DS disk) Fully working demo version of this popular Mac program for planning, composing, and creating complete presentations. (Also works with Magic Sac).

S7: GAMES #2: Space Bubbles, Stratego, Investigator #1, Towers of Hanoi, Marienbad

S8: IMAGE STUDIO DEMO (Does not save). A photo retouching lab on the desktop, modify digitized images in 65 grey scale levels.

S9: TELECOM #1: Stuffit 1.51, Stuffit Users Guide, Freeterm 2.0, Freeterm 2.0 Documentation, TermWorks 1.3, Packet III (version 1.3)

S10D: STACKS #1: Concentration, HyperGunshy, Dinosaurs, AutoStack, Home 1.2 (DS Disk)

S11: UTILITIES #1: MacEnvy, Benchmark, DiskTimer II, SampleIt 1.21, SampleIt Docs, Apfont 3.2, HierDA, Fever, OnCue 1.3 Demo, ScreenDump II, Findswell 2.0 Demo

S12D: FULL IMPACT DEMO (DS Disk) An extremely powerful spreadsheet program with even more features than Excel. (No save feature.)

S13D: STACKS #2: VisualStack, Chem Flash Cards, DisplayPict 1.4, Indigo Gets Out, AutCat, Animal Stack, Comic, OnTheBeach, anme That Plane. (DS Disk)

S14: UTILITIES #2: Big Das runner, Mac II Icons, DiskParam and Docs, Utilities 1.5.1 Guide, Unstuffit DA 1.5.1, Auto Unstuffit Installer 1.5, Repair 1.2, ICON Designer, Viewer 1.5.1, SuperClock 3.1, SuperClock Doc ToMultiFinder, Interferon 3.1, Interferon Instructions

S15: GAMES #3: Darts, MacCamelot, BricklesPlus, Gravitation 4.0, SwampLord

S16: DAs #1: NekoDA, BezierDa and Docs, SnapshotDA 1.2, Adventure and Docs, VirusDetective and Docs, BreakKey and Docs, SysErrTableDA, PinUp Clock DA, Freemem, New ScrapbookDA

NOTE: CN discount prices are available for quantity orders:

10+ disks (\$3.80 each)

20+ disks (\$3.60 each)

30+ disks (\$3.40 each)

40+ disks (\$3.20 each)

50+ disks (\$3.00 each)

Add \$1/6 disks for shipping and handling.

Order from CN Library, 122 N. Johnson Rd. Sterling, VA 22170.

The Best Atari Software

Edited by Bill Moes

It seemed like a good idea.

Blend the expertise of numerous Current Notes authors into an article showcasing and highlighting some of the best software titles for all Atari computers.

Ask those CN authors to pick titles they regard most highly. And write a brief review of each. Around 25 words ... *just enough*.

In this final collection, some programs are mentioned by more than one author. And their popu-

larity should be noted. But with no heavily structured (and limiting) format, some popular titles are left unmentioned. And perhaps that can be rectified in the future.

Current Notes is well-known for its in-depth and comprehensive reviews. While that policy won't change, it's still interesting to step back, relax, and quickly survey this Land of Atari. What follows is our first step in that survey.

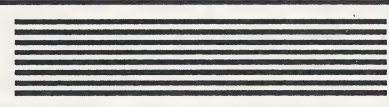
The rich variety of software mentioned should provide each of us with a better understanding of what's available ... or what was available *once*. May this article also provide us with worthwhile, enjoyable, and entertaining moments.

There is poetry ... there is humor ... there are pithy and to-the-point observations. They are all there for a single reason: you.

Enjoy.



ST: Wordprocessors



WordPerfect: The program that threatens to turn the Atari ST into a professional's computer in spite of Atari's impotent management. (WordPerfect Corp.)

--Dick Biow

STWriter: After praising another word processor for functions like indexing and footnoting, I still find myself using this one: familiar, old, nearly-free. The good old Bottom-of-File key (w/ Search key for returning to the numbers) makes end-notes, if not footnotes, easy enough. It has converted some IBM-modemed files, with Replace translating the markers. Reminds me to save file if it's about to make a fatal crash. The Change Case key makes things easy. But a plea: how about real line/page numbers. You could do indexes, tables of contents, page counts, find ends of pages for adding blank numbered pages for photos and whatever, plus! (PD)

--Dorita Sewell

WordPerfect:

When first issued, WordPerfect was not!

After five revisions, it is yet to be!

But, I use it a lot,

For it is the best available for the ST!

--Robert W. (Bob) Ford

Tempus: This text editor was meant for the programmer! In addition to being *unbelievably* fast, it also has many features designed specifically to aid in the development of software. This is one program I wouldn't want to do without! (Eidersoft)

--Robert M. Birmingham

STWriter: This PD program has everything I've ever wanted in a word processor. I am anxiously waiting for v.3.0 (what more can I say?).

--Carl C. Hahn

WordPerfect: Having multiple fonts would be nice, but having a solid, professional word processing program is more important. And this is the *only* one on the ST!

--David Duberman

STWriter: The best software value ever for the ST! Professional writers use this public domain word processor to make a living. More than adequate for almost any writing task.

--Robert Goff



MultiDesk: I use this as an accessory (it can also operate as a program) on all my boot disks. It breaks the six accessory limit, and lets you load and use different accessories, and flush them out of memory when you've finished. (CodeHead Software)

---Carl C. Hahn

Universal Item Selector: The best utility available on any machine. By replacing and enhancing the item selector, it makes a complete toolbox for disk operations available just when you need it most. I'm crippled without it! (Application & Design Software)

---Robert Goff

Superboot: Auto loads, accessories, GDOS's ... confusion galore! This auto-booter brings order to the fore. Pick, choose, and boot up your beauties in any screen config you really dig. (shareware)

---Frank Sommers

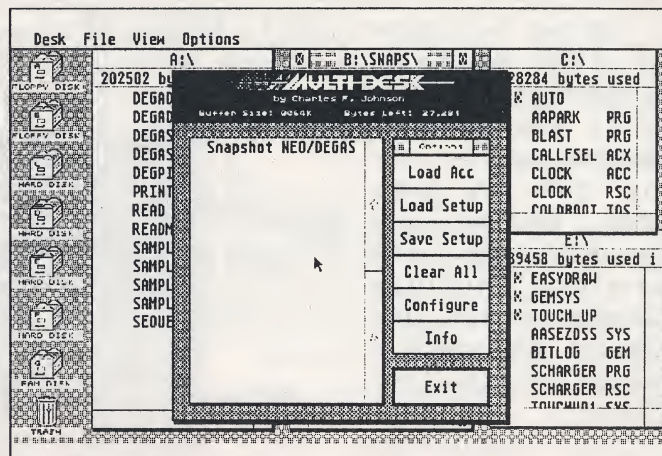
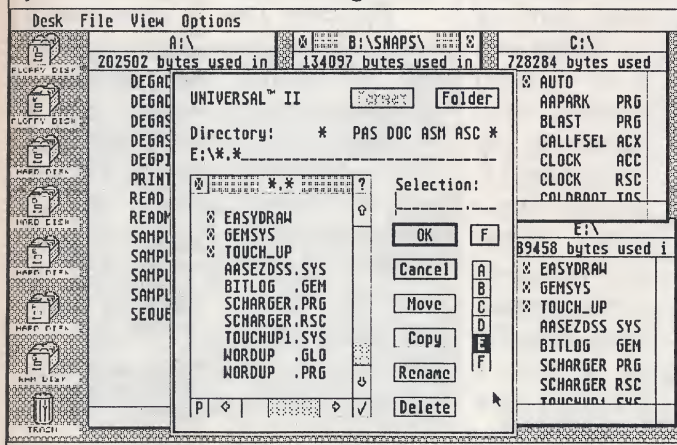
MultiDesk: A Cure for addiction. If you are addicted to desk accessories, like I am, then this is just what the doctor ordered. An elegant solution that *works* as advertised!

---Kirk Osterman

Super Directory: This is a disk library program everyone needs. It does the job easily, neatly, and quickly. It will sort, find, or print your files in almost any way you can think of, and capacity is only limited by your computer's memory. (MichTron)

---Carl C. Hahn

NeoDesk: This is the desktop the ST should have been born with. You can hope that Atari will wake up and burn it (and the brilliant Universal Item Selector) into the next ROM's--or you can take matters into your own hands. The menagerie of custom icons, the



smart windows with files neatly arranged to fit Shouldn't your desktop feel like home? (Gribnif)

---Christopher Anderson

Universal Item Selector II: I have this program in an auto folder on each of my boot disks. It's so much better (and more versatile) than the stock item selector that I couldn't get along without it. It's automatic, and there's even an accessory that lets you call it up from the desktop.

---Carl C. Hahn

G+plus: This program has made an amazing difference in the speed my screen refreshes in such programs as Easy Draw. This is what GDOS should have been! It conquers the ASSIGN.SYS dilemma, too. I don't know how I ever clipped art without it. (CodeHead)

---Pamela Rice Hahn

Uniterm: A terminal program for all seasons. With more features than you can shake a stick at, and for only the cost of a PD disk. This is a terminal program *for the rest of us*.

---Kirk Osterman

Universal Item Selector: From the "it should have been built-in dept." One utility that *no* ST owner should be without in his auto folder.

---Kirk Osterman

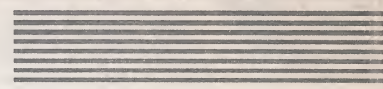
Generation Gap:

If you want to dig up your family root,
And feel you must compute,
Remember that Flying Pigs has finally taken off
With version 4, and it keeps me from playing too much golf. (Flying Pigs Software)

---Robert W. Ford



XL/XE: Games



Crusade In Europe: five scenarios ranging from D-Day to the Battle of the Bulge. All sorts of variations, a simple game system, and detailed, easy-to-follow documentation. More fun than most SSI simulations and beatable without cheating. (MicroProse)

---Len Poggiali

Primary Language: A disk full of fun alphabet and reading games for younger children, some of which can be adapted for continuing use by inserting your own questions and answers into the BASIC programs. Eight games in all, with Novatari's thoughtful on-disk documentation and packaging. (PD...Novatari, ED Disk #2)

---Patrick H. Adkins

Firebug: A fast, exciting arcade-style game with staying power. A burrowing insect must protect its buried eggs from various lethal intruders. A bizarre, addictive machine-language mix of bugs, lasers, and bombs. (Analog)

---Patrick H. Adkins

Frogger: the first game I bought for my Atari 800. The cassette took nearly five minutes to load. But *when it did!* Great music, great graphics, and fun to play! Seven years later, it's still addictive. (Sierra)

---John Godbey

ST: Graphics

Cyber Sculpt: Tom Hudson has put his experience with CAD-3D to good use in creating -- by far -- the most powerful 3D object editor available for any personal computer! (Antic)

---David Duberman

Kennedy Approach: Job strain! They struck and Reagan struck back. He fired 'em. But air traffic control was in safe hands as Atarians took control of our skies. (MicroProse)

---Frank Sommers



Wishbringer: a nice, little story about a likable mailman who leaves his village one day to deliver a letter. When he returns, his community has become a police state. A special place in my heart for this one: it's the only Infocom story I've ever finished without using a hint book. (Infocom)

---Len Poggiali

GOOD NEWS AND BAD NEWS

Paperclip Elite: This program proved that you can promise them anything, but then tell them it was all GDOS's fault. This is the program that promised all that Word-Up delivered and then said that it was impossible. (So how did Neocept do it?)

Paintworks and

Paintpro: both have great features that Degas Elite lacks. In fact, they both operate much more intuitively than DE. (Why do you have to select a color (e.g. white) in magnify mode with DE when white is the only other color you could possibly change a pixel to if it is black?) These two both have full page modes to make fast WYSIWYG posters. Either could have been big hits. I have early versions of both, but I did not buy upgrades nor recom-



mend them to others because they are copy-protected!

Timeworks: A software company that I love to love. This company promised its productivity trio (Word Writer, Swiftcalc, and Datamanager) after they shipped. I have never locked up or crashed Word Writer. When I sent them \$10 to write a printer driver because I could not get one to work properly with their install program (in itself a marvel of simplicity and power ... I still

blame the failure of the driver on the printer manual), they sent back the \$10 along with the proper custom-made driver! I didn't even need to supply the disk.

---all by Timothy E. (Menno) Rapson



XL/XE Utilities

MAC/65 Assembler: A cartridge. For me, programming the Atari 8-bit was never more enjoyable than when I had MAC/65 plugged in. With blindingly fast assembly times, and a built-in debugger, this product was second to none! (OSS)

--Robert M. Birmingham

Express: With an inexpensive modem, your computer's horizons are unlimited. All you need is the software. For the 8-bit Atari, this is the best. And it's public domain.

--John Godbey

Master Menu+: A menu program to serve all your needs. Loads from BASIC, runs BASIC or machine language programs with the touch of one or two keys, copies *.DOC files to screen for viewing. Even includes "mini-DOS" with all the standard DOS 2.X features. Very useful. (PD)

--Patrick H. Adkins

Turbo BASIC: Another public domain gem. For all those quick and dirty programs, this is the language to use.

--John Godbey

First XLEnt Word Processor: multiple windows, an 80-column preview screen, an icon command system, and graphic integration capabilities are some of the many features of this inexpensive, sophisticated program. I wouldn't trade in Paperclip, but I might consider retiring AtariWriter. (XLEnt Software)

--Len Poggiali

And the Winners Are!

Best Atari Software Mini Review Awards

Most Complete Entry Award..... Carl & Pam Hahn

Style Award Chris Anderson

Bend the Rules Award Menno Rapson

Poetry-in-Motion Award Bob Ford

Mini Review winners will be sent a Mini Atari Calculator.



ST: DTP

Publisher ST: the first "productivity tool" to give me that silly "I love my computer" grin. Its power rivals packages costing hundreds more on the Mac and the IBM, yet it retains that rare ST quality: grace! Polished, sleek, and smooth. It literally makes you want to work. (Timeworks)

--Christopher Anderson

Easy Draw (Supercharged): Having the ability to clean up scanned .IMG and other clip art files is great. Simple to use and gives me simply wonderful results. (Migraph)

--Pamela Rice Hahn

Publisher ST: Fantastic-looking output on 9-pin printers! Style sheets make implementing global changes in document very easy.

--David Duberman

Touch Up: A definite advantage for those times when, in conjunction with my QMI Touch Tablet, I need to create my own clip art. (Migraph)

--Pamela Rice Hahn

News

Final Notes

Yes, this collection of mini-reviews is almost as interesting for what it leaves out as for what it includes. (Notice the lack of ST MIDI?) And that is probably normal for this kind of article, an article that depends on donated effort and represents the eclectic views of the authors.

So, maybe you have some ideas of your own? Perhaps your favorite software wasn't mentioned ... and it should have been!

How about a challenge?!

Is this type of article something you'd like to see once in a while? The inquiring minds at Current Notes want to know!

If there is sufficient interest, perhaps in a few months your favorite software title could be included in a similar article. Or maybe, instead of an article on favorite software, it could be, as Len Poggiali suggested, a "wish list" of software you'd like to see published. Or we could follow Patrick H. Adkins' suggestion and go for "The Most Detested Programs."

What do you think? You'd like to tell everyone about your choice, wouldn't you? And have your "pick" noted by thousands! Sound exciting?

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ST WORD PROCESSORS

How To Pick The Right One For You....

By Jim Wallace

Back in the Spring of 1985, it was a whole lot easier choosing a word processor for the Atari ST. Although GEM Write was originally supposed to ship with the ST, it didn't. What did ship was a non-GEM, non-"WYSIWYG" program called *ST Writer*, which was basically an 80-column version of the popular 8-bit program by the same name. Later, the first real "GEM-ized" program (called *First Word*) appeared, which offered more state-of-the-art features.

Today, the Atari ST actually supports more word processors than any other computer on the market. Because in addition to the more than a dozen good ST word processors now available, you can also use most IBM, Mac, and CP/M word processors through inexpensive emulation! Indeed, in our history, computer users have never had the software selection that's now available for the Atari ST—certainly, a truly remarkable computer! But unfortunately, along with this vast selection of software comes the difficult task of selecting which program is best for your needs.

Can't See The Forest For The Trees?...

Any astronaut can tell you that it's much easier to tell the "big picture" from a high earth orbit, than it is from the ground. This is because we tend to get lost in the fine details. So now, let's take a quick (but organized) bird's-eye view of the types and flavors of ST word processors now available. Word processors now run the gamut from simple "text editors" to full-blown "WYSIWYG" (What You See on the screen is approximately

What You will Get on paper) publishing programs. Most word processors however, fall somewhere between these two extremes. And ironically, although WYSIWYG seems like the likely choice, there are still many good reasons for using "old fashioned" text-only style programs.

Text Editors

Relatively simple "text editors" are not only used for programming and the fast creation of handy "script files," but are also used for producing "ASCII" text files for later import into desktop publishing programs. In fact, although I own almost every word processor available for the ST, I am now using one of these simple "text editors" to produce this article—and why? Because almost everything I write is either sent to a magazine editor, or is imported into a publishing program. The ability to quickly produce generic text files is what I need. I don't care at this stage of the process about formatting, graphics, text attributes, or whatever. I personally find that it is far better to "keep it simple," allowing me to concentrate on the content—not the final product.

Since text editors aren't "burdened" by fancy screen graphics and other advanced formatting features, they generally perform much faster, and offer easier to read displays (less eye strain), and are both quick to learn and easy to use. While having most features wanted by programmers, they support only basic word processing functions. Features like bold and underlined text, headers and footers, spelling correction, etc. are generally not supported.

Some examples:

Micro-EMACS: An old "main-frame" text editor now available for the ST. Perhaps "the" choice for programmers. This free, high-powered PD program offers "zillions" of features and can do just about anything.

Tempus. This commercial program uses GEM and all the trimmings. Very fast screen updates...you'll love it!

Interlink. Yes, you can use this telecommunication program's fast, built-in text editor for more things than you might think...try it!

ED.PR.G. A quick and dirty Unix text editor that's really handy. I keep this in my root directory for creating script files, notes, etc. on-the-fly. Look for it, and other PD (public domain) programs on your favorite BBS.

Text-Only Word Processors

Following dedicated systems like Wang and the IBM DisplayWriter, the first true word processors for personal computers soon emerged. *Electric Pencil* and *Word-Star* for the Apple II, IBM, and CP/M machines like the original Kaypro were "golden oldies." Up a notch from text editors, these first-generation word processors offer additional features for working with words.

Text-only word processors actually fall into at least two different categories: those that support only one text style (default text), and those that also support enhanced text styles such as bold, italic, etc.

Default Text: These word processors are actually a carry-over from computer systems which did not have bit-mapped screens. Instead of displaying text attributes like bold on screen, they instead show command codes like "^B" to indicate that bold type is to be used by the printer, or a "^C" indicating that a word or line is to be centered. Examples include:

ST Writer. A throw back to the old 8-bit days, but still powerful and very popular. This free PD program is also available in Spanish and German. (Ed. Note: Version 3.0 of *ST Writer* is now available as CN Library disk #321.)

Wordstar. Yes, you can run both the CP/M and the IBM versions of this classic on your ST with software emulators. WordStar does "about everything," but is very hard to learn.

PFS Write. This tremendously popular "bread and butter" IBM program can be used with "pc-ditto." Highlighted color text is used on screen to indicate text attributes such as **bold** (yellow), *italic* (red), etc. *PFS Write* is so "comfortable" to use that you may not at first notice its many powerful, practical features!

Enhanced Text: Most programs use the ST's bit-mapped screen capabilities to display on-screen bold, underline, centering, etc. However, only the ST's built-in "default" screen fonts are used. The actual fonts which will print out are determined by the fonts which are built into your printer—not the fonts shown on the screen.

Text-only word processors still dominate in the IBM world, and remain the real "work horses" of the industry. While most IBM programs don't show on-screen text attributes like bold or italic, most Atari ST programs do. While bit-mapped screens are usually an add-on on most IBM systems, they come standard on the Atari ST and the Mac. Some examples:

First Word: *First Word*, *First Word Plus*, and *Word Writer ST* are all very similar, and are currently the most popular choices for the average user. (*First Word Plus* can also import and display graphics on screen in a somewhat limited fashion).

Text-Pro: This program takes a different approach by offering the user two screens: one for quick

editing, and one for "previewing" text attributes and formatting on screen.

WordPerfect. Currently the world's most popular word processor. In fact, many companies will offer you a job if you are familiar with it! This is the only program that runs on the "big four" (IBM, Mac, Atari ST, and Amiga). If you can afford it, it's the BEST—especially for those really big jobs.

"WYSIWYG" Word Processors

These second-generation word processors are currently the most talked about and popular programs on the market. With them, "what you see on the screen is close to what you get on paper." The first popular program of this type on a personal computer was *MacWrite*, although a similar program first appeared on Xerox's "Star" work station.

How are these second-generation word processors different from the rest? Well, next to desktop publishing, these programs offer "the works." This includes multiple on-screen fonts in varying point sizes and type styles, plus the integration of both text and graphics in a single document. If you know what *MacWrite* is like on a Mac, then you know what you can expect from programs like these.

Personally though, I find this type of program (at least for now) to be my least liked of those available. For me, they are too slow and awkward for generating my much needed "ASCII text files," while not being nearly as powerful as true desktop publishing programs to fulfill my ultimate formatting needs. Thus, my own needs fall mostly at the extremes. But if you don't want to get involved with the more advanced publishing programs, this is probably what you're looking for. Some examples are:

MacWrite. Use this Macintosh program with the "Magic Sac" to discover what this is all about.

Microsoft Write: Supports multiple, on-screen GDOS fonts but doesn't have graphic integration capabilities.

Word Up!: This program comes closest to desktop publishing programs by supporting both on-screen GDOS fonts and integrated graphics.

The Next Generation

The upcoming "third-generation" word processors will look more like desktop publishing programs, and will use artificial intelligence. However, faster computers with higher resolution screens and other now-expensive features will be required to keep up with all this advanced software. For now, Atari's new Mega computers will be at the forefront of these new word processors for the "next generation."

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by Richard Gunter

Keeping track of things is a problem that some of us, the naturally disorganized, and the pack rats of the world, never really solve. A temporary solution is to move—especially to a smaller house. Grand opportunity to throw things out...

Life's not a lot different with a hard disk drive hooked to the home computer. Sure, it holds buckets of stuff, but it gets cluttered pretty quickly.

Before long, files that ought to be together, aren't; while the ones that are, turn out to be the wrong ones. Folders seem to reproduce, when we aren't looking, in wild and mysterious ways. Multiple copies of the same file proliferate. We find multiple versions of a file, and wonder which is which. Data files and programs get mixed up in a digital smorgasbord.

Life *really* gets exciting when an upgrade to our favorite word processor arrives and we eagerly install it, only to find that the folder we erased contained all our letters!

Sound familiar? This kind of situation is the NORM! But it needn't be. There are some things that can be done to keep that hard drive from becoming a pain in the anatomy. It will take some work and some planning, but it's worth it.

Before we dive in, we need to know a bit about Atari's file management system: what folders and partitions and pathnames are about. We won't get very technical, so don't panic.

Partitions

Atari file management is patterned after MS-DOS. That's one reason we can exchange floppies with our less enlightened friends. It's also an explanation for partitions.

Seems that when MS-DOS was

originally designed, nobody anticipated storage devices larger than 32MB. When the need arose, the **partition** was born. The idea was to logically divide the hard drive into multiple sections, each of which was to be treated as though it were a separate disk drive. TOS follows a similar pattern, but imposes a smaller limit on partition size—16MB.

Folders and Directories

On the ST, the terms **folder** and **directory** are synonymous. The file cabinet and folder icons on the desktop are appropriate. A file cabinet (drive, partition) can contain one or more folders, into which we can put files. We can even put folders inside of other folders.

The folder and file relationship can be represented pictorially as a tree-like diagram (Figure 1), resembling a corporate organization chart. At the Chief Executive's spot, there's a box labelled "ROOT." This is the root directory of the partition—its contents are revealed by double-clicking on the drive icon at the desktop.

The root directory contains a stack of folders and a collection of files. Each folder contains other folders and files, until we eventually get to a level where there are no more folders.

Simple. Elegant.
Higher level folders can
be used for broad

groupings of data; lower levels, for the more narrowly defined categories.

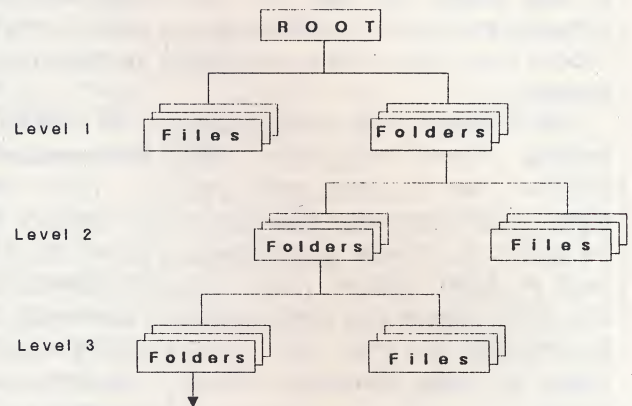


Figure 1. The Directory Tree

Pathnames and Item Selectors

Stuffing files into folders may keep us occupied for awhile, but sooner or later, we'll want to do something with them. This means running a program, and we need a way to tell the application which file to use. ST applications usually handle this in one of two different ways: by asking the user to type a **pathname**, or by using the **Item Selector**.

In the first case, the program opens a dialogue box like the one in

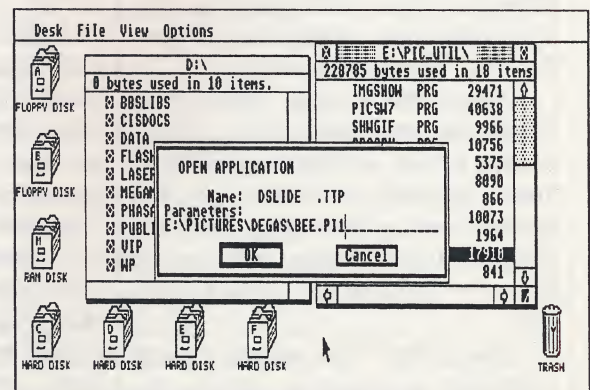


Figure 2. A Dialogure Box

Figure 2. Imagine that we know a file is located in a particular folder somewhere in the directory tree. Starting at that file, we trace our way upward toward the root directory. By keeping track of the folders we pass through, we can write down the complete pathname for that file, and that's what we type on the Parameters line. For instance:

E:\PICTURES\DEGAS\BEE.PI1

This says that on drive E: there is a folder named PICTURES, containing another folder named DEGAS. Inside that folder is the file BEE.PI1, which happens to be a Degas format picture file. A **partial** pathname, such as

E:\PICTURES\DEGAS\

doesn't point to a particular picture, but rather to the folder containing my collection of Degas pictures.

The second method is the Item Selector. Using the mouse, one points and clicks to open folders until the desired file is found, then clicks on it (Figure 3).

Defaults

Many applications programs have a setup (sometimes called an install or configuration) feature, which allows the user to specify a partial pathname pointing to the folder containing the data. This information is saved so the program can use it on subsequent runs. Basically, this means that we can arrange our data files wherever we wish, and tell the application how to adjust to that arrangement.

Some programs, like *Word Perfect*, let you specify several different default paths: dictionary, thesaurus, and document files don't have to be in the same folder as the program; each type of data can be in a different folder.

Now that we have the basics of partitions, folders, and pathnames under our hats, we can get on with some ideas for organizing our hard drive. Some of the following material was adapted from *The Hard Disk Companion*, by Norton and Jourdain. This book contains a wealth of information about using hard drives.

It's a worthy addition to your computer books library, even though it's strongly oriented toward the IBM PC community.

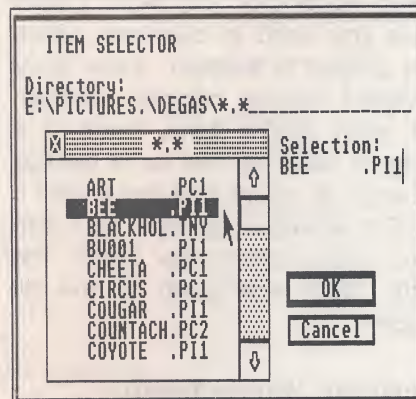


Figure 3. The Item Selector

Put Partitions to Work

Since each partition has its own root directory, we can make them work for us. By using multiple partitions of different sizes for our broadest categories of data, we can cut our total organization into smaller, more manageable pieces.

For example, we might have systems stuff on Drive C:, telecommunications on Drive D:, art programs and pictures on E:, and so on. If you're into programming, it might be a good idea to reserve a whole partition for your compiler and code files; you might be a little less likely to wipe out other things when your latest programming effort fails.

Unless you have a *really* large drive, you'll probably find that setting up too many partitions gets counterproductive; try to find the minimum number that meets your needs, while allowing enough room to be useful. On a 30MB drive, that's probably going to be around four or five partitions.

Reserve Drive C:

There are some special considerations for Drive C:. For autobooting, C: must be the "boot drive", and certain things have to be located here. The AUTO folder. Desk accessories. The DESKTOP.INF file. Any setup/configuration files used by

desk accessories and autorun programs also have to be on this drive.

A certain amount of clutter is inevitable on Drive C:, since a number of essential files have to reside in its root directory. Avoid putting loose files in this root directory. It's a good idea to reserve Drive C: for "systems" files and utilities.

Prune the Tree

Some users get carried away on first learning about the folders within folders business, creating elaborate directories of many levels. This causes more trouble than it's worth.

Moving around in a complex directory structure means a lot of mouse clicks at best. Pathnames can get lengthy, often too long to fit in most dialogue boxes. Besides, dialogue boxes can be pretty unforgiving. One error in a long pathname, and you may be looking at the desktop.

It's much better to spread things out. Create more folders at the root level, and avoid allowing the directory to get too deep. Two or three levels are adequate for most purposes. The main thing is to keep the directory tree wide and shallow.

Small is Better

A lot of small folders is generally better than a few large ones. It's usually easier to find what you're looking for, and directory windows are rather more manageable.

Watch out for the "40-folder limit" problem. Get a copy of FOLDRXXX, and install it in your AUTO folder.

Folder Names

Short folder names and shallow directories lead to shorter pathnames, with a better chance of fitting into those dialogue boxes. Do try to keep the names mnemonic, though. In making up folder names, try to think up short abbreviations that suggest what they're for. UTIL is a pretty obvious short version of UTILITIES, but COMM could be short for COMMON or COMMUNICATIONS.

Don't use the same names for folders as for files. It'll work, but it's too confusing. It's just as easy to use a different name.

Similarly, avoid using extensions on folder names. DOCS.TXT is a perfectly valid folder name, but doesn't jog the memory any better than DOCS, and it makes for longer pathnames. If you use the "display as text" option for desktop windows, the missing extension and the special character that TOS displays with the folder name combine to make folders stand out pretty vividly. Take another look at the windows in the background of Figure 2.

Make a Toolbox

You'll probably find yourself using several utility programs quite a bit. Since utilities can be viewed as "systems" stuff, we might as well collect them in one or more folders on Drive C:. I keep most of my utilities in two folders, C:\DISK\, and C:\FILE\. This places my most-used utilities just a double click away.

Hide Dangerous Toys

Some programs, like sharp knives, are dangerous. Perhaps the deadliest are the hard drive utilities. Supra's SUPUTL program, for example, can wipe out everything on a partition in less time than it takes to say, "Oops!"

Bury the dangerous programs in a relatively deep level of some directory, or isolate them in a folder of their own, where they can't be executed accidentally. Some people keep such things on floppy disks—just to make them harder to reach. Not a bad idea.

Eliminate the Irrelevant

When installing applications and utilities on the hard drive, consider whether all those files are needed. For example, resource (.RSC) files for monochrome monitors are pretty useless if you have a color system. Likewise, tutorials and examples aren't necessary once you're finished with them. And do you really

need to keep all those documentation files on the hard drive?

While you're working on a project, it's a good idea to retain previous versions of your work, just in case you need to backtrack. Once the project is finished, these early versions quickly become useless. As soon you're done, make it a point to clean up. Get rid of detritus as soon as you're sure that's what it is. For example, as soon as I ship this column off to Our Editor, the early drafts are going in the bit bucket.

Periodic Housecleaning

Even with a good disk organization, files will tend to accumulate. You'll need to take a little trip around the hard drive once in a while to make sure everything is under control.

Remember: the amount of data expands to fill all available storage space. Somewhere along the way, the stuff that is least often used will just have to be jettisoned or moved to floppies—with hope that we can find it if we do need it later.

Two Directory Structures

Figure 4 illustrates a commonly-used directory structure, even among pretty sophisticated users. At level one, we have a folder for each of our applications. (I've shown only two—a word processor and a spreadsheet). In the WP folder, we place the programs and other essential files they need, just as the installation instructions told us. We also create a Data folder here. Same for the Spreadsheet program. In the WP data folder are all our word processing documents; in the Spreadsheet data folder, all our worksheets.

But wait. We may be working on several projects at one time. With this organization,

all the documents for several projects are stored in one folder, and the spreadsheets for the same projects are in another. There's no single place where all the data for a given project is collected. This structure emphasizes applications at the expense of the data.

What's the most important thing on your disk? Your data. NOT the programs you bought. That being the case, why not let your directory structure reflect that emphasis explicitly?

Now check out Figure 5. This is one of the best ideas in *The Hard Disk Companion*. It's also one of the best ideas I've seen anywhere. As before, each applications program has its own folder. Now, though, we've created a single folder for each project. All the Project 1 material is stored in one folder: artwork, DTP files, word processing documents, spreadsheets, notes, etc. There's no need to wonder whether there's a spreadsheet for the project; if so, it's there. When Project 1 is finished, there's only one folder to clean up.

Norton and Jourdain take this idea a step further by suggesting that a new folder be created at level one of the directory. In that folder, put the applications folders. This shifts the applications one level lower in the tree, and makes the data emphasis even more graphic. I don't recommend doing this on an ST, for two reasons. Some ST appli-

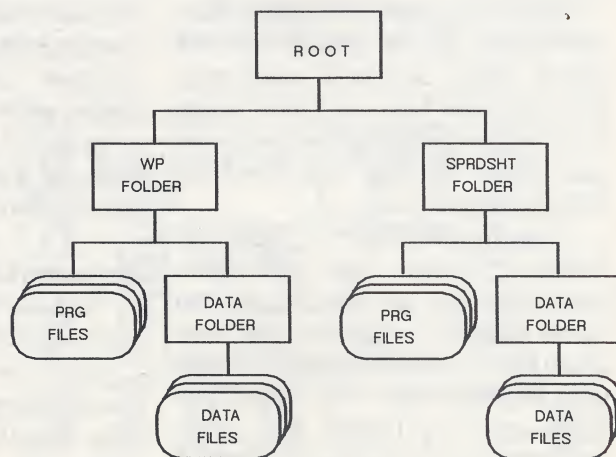


Figure 4. A Common Structure

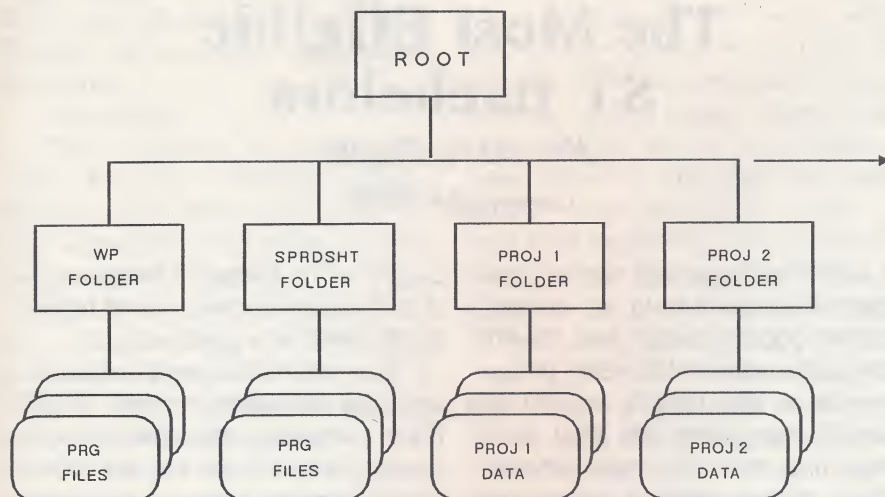


Figure 5. Emphasize the Data

cations won't run unless their folder is in a root directory. Second, installation procedures for ST applications tend to be a bit more automated than those for PCs, and it could be a lot more difficult to get them installed at a lower level and working properly.

A Word on Backups

A complete hard disk management strategy includes a backup policy, so let's look at this issue briefly. One question that comes up early in the game is this: To back up everything, or not? There are two schools of thought on this subject.

Some people periodically back up all files on the disk. Others back up data files only. Rationale for the latter is that, should something go wrong, the applications can be re-installed. After all, we still have the original disks, and we did duplicate them like the manual said, didn't we?

Both philosophies have merit, and I'm not strongly in either camp. At the moment, I'm backing up everything because the TURTLE program is easiest to use that way.

You should do a full backup (of data or everything, as you choose), on the order of once a month. In between, do an incremental backup of whatever is new or changed since the last one. You'll have to judge for yourself how often to do that. Let paranoia be your guide.

I'd recommend taking an incre-

mental backup once or twice a week. With really important data, any time I make a change that would be hard to reproduce, I'll usually make an extra backup of just that data.

Take another look at Figure 5. All that's needed to back up a project is to back up one folder.

There's another variation on this directory structure that you might want to consider. If the project folders were moved one level lower, to a DATA folder, a data-only backup procedure might be just a little bit more convenient. On the other hand, visibility of the data would be diminished.

Fighting Fragmentation

Fragmentation is a performance killer that occurs when files get chopped into pieces and stored at scattered locations on the disk.

TOS keeps track of the sectors available for new files ("free" sectors) as well as those that are already committed to files. When an old file is erased, the sectors it formerly occupied are added to the "free" pool. New files get their space allocated from this pool.

Trouble is, space is allocated a little at a time, starting at the beginning of the "free" pool. Both the "free" pool and files eventually get chopped up. The situation always gets worse, with performance gradually degrading until the whole system slows to a crawl.

In addition to getting a good backup program, you should consider a special utility called a "defragger."

A defragger romps through an entire partition, rearranging both files and free space to put everything back in proper order. Because what these programs do to the disk is rather drastic, do your defragging when you do a full backup. Do the backup first...

Final Thoughts

We've covered a lot of ground, but none of the concepts are hard to handle. In fact, everything we've discussed can be wrapped up in four sentences:

- ✓ Lay out a prudent directory structure, and don't be afraid to adjust till it works right.
- ✓ Do regular housecleaning.
- ✓ Establish a routine backup and defragging plan.
- ✓ Don't take silly risks with your data.

That's all for this time. Happy computing!

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The Most Eligible ST Bachelors

By: Dave Small

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You see, it's April, the month of romance. It's also April, as in April 1. Time for a slightly tacky column, written in the best Cosmopolitan mold.

We've got our main topic to cover here, a little Spectre gossip, and so forth. On with it!

Loss Of Programmers

Over the last two years, we've lost many of the best ST programmers to other computers. We've got to get them back developing software for the ST.

I consulted with my wife, who is rather practical in these matters, and she said, "The only way to get them back is to appeal to them in a different manner." I asked her what that might be; her reply was a smoldering-glance-over-the-shoulder.

I got the message.

She reminded me of a long-ago column on "Why don't women like computers?" for Current Notes. I got some fairly heated mail for that, from women who DO like computers.

Here the best former ST programmers I know of, and hang out with, are single men, and **are looking**, but haven't found anyone.

HmmMMMMMmm, I said to myself. There are women who do like ST's. And there are these eligible bachelors. HmmMMMMMmm. Perhaps we can set them up with people who are interested in ST's, and thus get them back into the ST world.

An Opportunity

So here's your chance. Two eligible former-ST bachelors.

They're bright. They're creative. They write the programs the rest of

us use. They have real live personalities, and are fun to be around. They're good looking. And they're not geeks, either; the worst I'll say of them is that they've worked so hard at computers that they don't often find time to meet anyone. (This is an occupational malady not limited to computers.)

Sandy describes both of them as a "prize catch," whatever that means. (I never did understand some of her phrases. She says she means to keep it that way.)

I'll describe them. The rest is up to you. If you're interested, send a letter to the address at the end of the column, and I'll forward it along appropriately. Naturally, I won't give out their true address, unless you bribe me. Call for credit terms.

Naturally, this is sexist in a way, but I've not yet met any eligible young female programmers who are looking; but hey, if you are, drop me a line, and the next column could be about you...

Dan Moore

What do you look for in a guy? If you want someone that's soft spoken, sincere, highly intelligent, able to discuss world events and science fiction, and you don't mind a beard, you've got Dan Moore. Note: it is part of Dan's and my relationship that I tease him about his beard.

Dan's one of the best programmers I've ever met. The only reason I don't call him the "best" is he's so far ahead of me that I don't know if he really is, in that group; could be one of his associates is. In any event, the peer group he's in is tops.

Dan wrote *PaperClip* and *Syn-File* for the 8-bit Atari machines, which were state-of-the-art. He did *PaperClip Elite* for the ST, and it got

caught in the foldup of Batteries Included, alas; I've seen it and helped test it, and it was spectacular.

Dan and I frequently write columns for magazines, chiefly START. We're the people that unleashed the Twister disk format on the world, Meg-a-minute backup, and even the Amazing MouseTrap. Dan does the coding; I do the writing; we both contribute ideas. Good synergy there.

Dan's got a sense of humor that mixes well with mine. We both enjoy Bloom County cartoons and T-shirts. We both agree that Star Trek: The New Generation is an atrocity. We both like to program to Pink Floyd. What more can you ask for? Check out our comments to one another in the Twister source code; as I recall, I was begging Dan to shave off his beard, and noting his resemblance to Fidel Castro with it... I'll let you look up his comments yourself. (Really, Dan. What **about** Brooke Shields?)

Dan isn't one of the single-interest people you often find in computerland. For instance, he's proficient with weapons. A few months ago we went and tore up targets with a fully automatic H&K machine gun. I know, I know, some of you out there don't like guns or anything associated with them; Dan and I happen to, as a hobby and skill (target shooting is really quite a skill, taking years of practice to perfect).

Dan's also got himself a new 4-wheel drive to get up into the mountains with, knows the wines of Texas (incredible sounding, but true; Texas is winning all sorts of awards with its wines), and has watched me drink myself under the table on several occasions and not reminded me about them. Once he even took me out so I could talk with him

about troubles I was having with Sandy, and he watched me drinking Zombies all evening--and poured me home.

He's alright.

Dan's around 29 years old. While he isn't officially college degreed, that didn't prevent AT&T from recognizing his talent at programming, and hiring him.

This is **very** unusual for AT&T and reflects highly on Dan. Dan grew up in Texas but resides here in Colorful Colorado these days, just a couple of miles from where I now live. (He resided within a rock-throw distance of me when we were renting; I tell you, some of the coincidences involved in the Magic Sac / Spectre development are eerie.) Did I mention that Mark Baldin, who authored *Empire* (the game) for the ST, lives just a hop and a skip away, too? (I was going to, but the column was running a bit long, and I had to get in at least two bachelors. Sorry, Mark; another year of loneliness for ya.)

Since leaving the ST world, and selling me all his old equipment (I need it for the Spectre), Dan now lives in the world of ultra-speed UNIX mainframes, laser printers, connections to other machines, and so forth. Yet he retains his ST knowledge (he comes over and writes stuff with me all the time).

There still might be time to save him for the ST world. Come on, someone, go for it.

Tom Hudson

Tom's a tall, pleasant rowdy with a very good smile.

Tom wrote *Degas*, *Degas Elite*, *CAD-3D*, and a zillion other CAD packages for the ST, and probably fifty other significant programs I'm missing. He's also done some neat stuff for START--ray tracing, for instance. He seems to always be doing something interesting.

He also did a fine article on the realities of free-lancing, and how hard it could be. I really related to that.

Last time Tom dropped by, he, Sandy and I talked until 3 AM about

various subjects. Roger Rabbit. Films. Cartoons. Star Trek and why the Next Generation was so bad. It was one of those conversations you get into that has a quick interchange of ideas, that leaves you intellectually satisfied. What also was neat about it was something I have a hard time explaining. Tom is one of those people that you tell half a sentence too, and he can mentally fill in the rest; he is quick and bright.

So part of the conversation went on in these half-sentences, which sped everything up. Those conversations only happen when you're talking with someone who's really tuned into your wavelength.

A rowdy? Well, let's see. Who else gets their picture into START magazine with scuba gear on, sitting on the bottom of a pool, programming an ST? Not bad! (Last thing I did to START was to designate *Dungeon Master* as my favorite program in every category--database, word processor, game, spreadsheet--in their Contributing Editor's area. Tom and I have a running contest to see who can pull what prank on magazines.)

I think we're tied at the moment; I got my picture onto Mac-Week's front cover with a .50 cal ammo belt draped over my shoulders and a stern expression. (Take that, you Apple lawyers). But Tom at the bottom of the pool evened that out. I've been trying to think of something new for a long time now.

Alas, Tom has been seduced away into the world of 386 machines, VGA cards, and the like: IBM clones. I'm not quite sure what he's doing there, but I'm sure he's having fun.

Tom has an interesting video of himself and friends shooting up his old video recorder with several (legal) automatic weapons. That's my sorta person, willing to have fun in an unpretentious manner. (When he dropped by here in Denver, I showed him my ... dare I say it? automatic BB gun, and we spent time shooting the tops off coke bottles, and did a little impromptu 4th of July display in my backyard--

home mixed, of course. Worked well.)

I'm not certain of Tom's age; I think he's old, like me (30). And he likes dogs.

Random Gossip

Well, that covers our tacky Bachelor's area for this month. Aren't you glad April only comes once a year?

On to our Random Gossip.

Spectre 1.9 is finally done. Spectre 1.9 happened when I made a bunch of bug fixes to Spectre 1.75 that people wanted--the arrow keys work as Mac arrow keys, the flashing "A" eject bug was cured, and so forth. But by the time these bug fixes were done, new and exciting stuff was happening--sound was working! Yep, the ST went "Bong!" like a Mac does on powerup; it "beep"ed like a Mac; it even went so far as to play digitized Mac sounds. These, widely available on the BBS's, PD libraries, and so forth, typically wire the Mac playing a given sound to a given event--say, the Star Trek "beaming up" sound is played when you insert a disk into the Mac.

And yes, I know you can't wait to ask. The sounds for MacPlaymate now work. To which my only comment is,

"What have we begun?"

-- Tom Scholz

Dan came over and whipped through an SLM-804 laser printer driver, which emulated an MX-80. Thus, you can now get **direct** prints of stuff to the SLM-804--MacPaint pictures, text, and so on. (And the SLM would no longer hang if you moved the mouse while it was printing, another bug fix.) Nor did he stop with the MX-80, at its 72 dpi; he's just got the LQ driver in, and is going for a 360 x 360 dpi driver next.

We came out with a 20-page newsletter last week (March 6 or so) covering all this. We pointed out that Spectre 2.0 wasn't ready yet, but if you wanted all the bug fixes, plus beta-test versions of the Sound and

(Continued on Page 37)

I feel like I've just walked into a huge room, filled with unfamiliar but friendly faces. I'm wearing one of those sticky name tags pasted over my shirt pocket (with my name "Steve" scrawled in red marker) and a look of excitement mixed with apprehension is working its way across my face. I don't know you and you don't know me. Nothing to do except plunge in and start shaking hands.

So here I am, one of Joe Waters' new recruits, all set to pen a monthly column for Current Notes that will focus on the very broad subject of computer graphics. Since this is going to be a one-sided conversation for awhile, let me start by telling you a little about myself. And in so doing, I think you will see where this column will be going and where I may be of help to you.

I'm going to skip all of the really interesting fluff like my age, my pets' names and how many kids I have, and get right down to the basics. First, and foremost, I am an artist. I was one of those lucky few who knew what I wanted to do in life from the time I was in fourth grade and the teachers made such a fuss over my drawings. I've worked as a free-lance illustrator, owned my own art gallery and worked over the years in advertising and television. For the past 5 years I've been involved in the new and rapidly expanding field of computer graphics and currently have a job that many people would envy; I spend most of my working day creating computer graphics on an Atari ST.

I suppose I have video games to thank for my new career. Like many others, I was intrigued by the early video games with their colorful graphics and animated characters. I have always been fascinated with animation and one of my early dreams was to work for Walt Disney creating his classic animated films. I became equally fascinated with the

video games. The idea that you could actually control a moving character on a television screen was intriguing, and the animation, while crude, showed the tremendous potential of computers in creating cartoon-like movement.

But I wasn't content to just play video games. I wanted to learn how to create them myself. I wanted to explore this exciting new medium that many thought childish or a passing fad, and see if there might be a future in it for me. So I went out and bought an Atari 800. (This was back in 1983 when an Atari 8-bit system was king of the hill and cost as much as a Mega2.) Well, I spent all my spare time (when I wasn't playing games) learning to draw with Micropainter and the Koalapad, and teaching myself to program in Basic. Shortly after that, through a bit of serendipity, I found myself creating Atari graphics for the pilot project of an interactive communications system called PIRCS (an acronym for Personal In-Room Communication System).

The PIRCS system was developed for the hotel industry as a means of improving guest services and establishing new areas for revenue for the hotel. PIRCS is an interactive system which allows the guest to not only receive information but request specific information through the hotel television. This is accomplished through a high-speed two-way communications network utilizing the latest in computer and video technology. In addition to viewing standard television fare, the PIRCS guest can set a wakeup call, order Room Service, read messages or checkout from his room. He can also play video games, purchase pay movies, or access a giant information database with information on local restaurants, entertainment, sporting and leisure activities and transportation. All of this is accomplished

through the hotel television set using a standard remote control device. As you might suspect, this is no ordinary television. In fact, the television (which is actually quite ordinary) is controlled by a black box about the size of a portable VCR. This box contains custom electronics centered around a Z-80 microprocessor, and an Atari 65XE board. The Z-80 communicates with a centrally located head-end computer (typically an NCR Tower), while the Atari displays the computer generated text and graphics. In essence, the Atari sees the main computer as a giant disk drive, while the Z-80 controls the Atari, telling it what to display and "pressing its keys" on behalf of the user. In its prototype days, PIRCS made use of an Atari 400 (remember those?) upgraded to 16K of RAM.

Its five years later and PIRCS is now an established product with systems aboard cruise ships and in prestigious hotels in the U.S. and Canada, including the new Grand Floridian Resort at Walt Disney World. And I'm still busy using my Atari ST to create both ST and 8-bit graphics for client systems and to do everything from technical drawings to marketing presentations. I rely on the ST and great Atari software like DEGAS Elite, Easy Draw, Publishing Partner, CAD-3D, Cyber Paint, Laser C and Flash to allow my one-man graphics department to not only keep up with the demands of our customers, but also enable me to offer exciting new graphic capabilities within the system.

In next month's column I'll go into more detail on how PIRCS works and the important role both the Atari ST and the Atari 65XE have in the PIRCS system that have contributed to its success in the marketplace.

Although my job keeps me busy, I still find some spare time to play games (my current favorite is

Dungeon Master); serve as managing editor of NYBBLES and BYTES, the combined newsletter of the Phoenix, Arizona area Atari User Groups; produce a series of high resolution clip art disks for desktop publishing (marketed by Magnetic Images); work with my friend David Lindsley writing commercial video games (our latest, due out this spring, is called *Lost Dutchman Mine*); and have fun creating CAD-3D animations with the great Cyber software.

As for this column, I guess I'm here to serve as the so-called graphics "expert." I'll share my experiences and try to answer your questions. I've used practically every graphics package available on the ST, from desktop publishing to paint programs to the aforementioned Cyber 3D animation software. I'm a fairly proficient programmer with experience in C, Pascal and Basic, including the new STOS Basic. While I work primarily with the ST, I still have my old Atari 800 and still keep up with the new software. Over the course of this column I'll be reporting on the advances in the computer graphics field in general, and Atari ST graphics in particular, whether it be new software, new hardware or intriguing uses for the Atari in business or industry.

As I've said, this has been a one-sided conversation so far, but I hope that will change. Please feel free to send in your questions and comments and I'll do my best to find the answers. If you use an Atari to produce graphics in a professional environment, please share that information with us. I'm sure all of us could benefit from seeing how the Atari is being used in the exciting and ever-expanding field of computer graphics.

Well, I've introduced myself and shaken a lot of hands, and now its time to take off this name tag and head home. Until next time ...

SMALL WORLD (Continued from page 35.)

Laser Printer support, let us know.

1.9 is **free** to registered Spectre owners.

Anyway, that's all been keeping me hopping, along with working on the really quick Spectre GCR. This is a Spectre that reads and writes Mac disks. Just like the Translator, but much, much faster, hopefully even faster than the **superfast** native Spectre format. But hey, all I ask is a fast hard disk and an assembler to steer it by; I've got a 68000 driving that GCR, and that's one awesome processor.

Dave's 31

By the time you read this, I'm 10 years out of college and my 21st birthday. What a long, strange trip it's been. I've worked at many places, and it hasn't always been the most positive of experiences. Working for myself, and with my family, now, has been. It is nice to finally have succeeded in a big way, I'll tell you; there were too many years living hand to mouth there.

Sandy, as head of the company, is doing something she's never done before--and doing quite well, too. It's improved her confidence in herself, and she keeps asking me--This is so easy! Why was this so hard at Data Pacific?

(I have no answer.)

After my last experience with a company, it is comforting to sit down at the breakfast table and be having a meeting of the board of directors.

We're finding the international FAXes and letters to be the most fun of all this. We hold a contest to see who got the letter from a new place, or a strange place--Iraq, for instance, is not a place that I would have imagined is interested in Spectres. But there's this letter from there...

dP Holiday

Barb and I, and Sandy, marked our one year's anniversary of exiting from Data Pacific with a bottle of

Dom Perignon and an afternoon off to reminisce. That's strong stuff. Soon, the guitar was out, I was playing my standard rendition of "Stairway to Heaven" music with the lyrics to the TV show "Gilligan's Island"; Barb showed us why she was in a rock band as a singer; she's quite good; she cranked up the DX-7 and played for us.

Why Dom Perignon? The letters "dP," of course.

I drew many conclusions during the course of this party, and had many mind-boggling insights, some of which I even managed to express, while tripping over my tongue.

I don't remember any of them.

Conclusion

Well, there you have it, a little April Fool's, a little of this, a little of that. No real crusades, no technical information, only a little bit on Spectre. A comfortable birthday column for me. Hope you've enjoyed the tone, and I look forward to reporting on any reaction to the column, as well as what Dan and Tom do. (I think they're going to enjoy it. I hope they're going to enjoy it. Tom's a better shot than I am.)

You know, April 12 is very close to when the original "MacCartridge" was unveiled at the West Coast Computer Faire in 1986.

Happy third birthday, Mac emulator.

* * * * *

Mailing Address: (note: this is a newer one than the 9678-B address we used before; we're phasing out the 9678-B box.)

Gadgets By Small

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If you want to have me forward a letter to Dan or Tom, just address it to them, in c/o Gadgets By Small, etc. It'll get to 'em. (And I won't open them!)

I look forward to both of them getting back into the ST!

Falcon--The Game of the Year

Blazing Guns and Graphics

Review by Roger Abram

Too Much Fun!

I consider myself a relatively mature person. However, in drafting the opening paragraph of this review, I found myself describing how to locate a moving convoy of trucks in Spectrum HoloByte's *Falcon* and then what it was like to swoop down on them with guns blazing. The sight of the trucks being hit and blasted off the road had to be seen to be appreciated. Then the whole thing struck me as somewhat demented. I mean, here I am, a middle-aged father of three describing how to blow up trucks! Shouldn't I put away my toys and start concentrating on more adult activities, like filling out tax forms? Naw! It's too much fun!

Falcon is a truly pleasurable F-16 Jet Fighter simulation that has dazzling graphics, great sound, superior documentation and, most importantly, playability. One of the nicest features of the program is the ability to progress in difficulty as you learn to fly the F-16. One frustrating aspect of *Jet* (sub-LOGIC) was just how relentless and accurate the enemy was at even the lower levels. It was tough to shake off missiles that were simultaneously being launched by MIGs and SAM sites.

With Rank Comes Danger

In *Falcon*, you start off at First Lieutenant where you're virtually indestructible and then each new rank brings a higher level of difficulty. It is not until the third rank, Major, that the SAM sites can fire missiles that can hit your plane. Even at that rank, the MIGs are only somewhat accurate in using their weapons. The definitive rank, Colonel, will test your skills in all aspects of the F-16.

The basic premise of *Falcon* is to complete all (or as many) missions provided in the program before biting the big one. The 12 missions run the gamut from target practice on friendly soil (Milk Run) to intercepting and destroying 4 MIGs (Grand Slam). In between there are missions to destroy suspension bridges, a communications center, SAM sites, enemy headquarters, and more. Merits, medals and ribbons are awarded for completing missions and the top ten pilots are saved to disk.

Weapons Galore!

To aid in your quest, the F-16 can be configured with a potpourri of munitions: AIM-9J Sidewinder, AIM-9L Sidewinder All Aspect, AGM-65B Maverick, Mk 84 2000lb Low Drag Bomb, Durandal Anti-Runway Bomb, and the M61-A1 Vulcan Internal Gun. In addition, you can carry extra fuel tanks and an ALQ-131 ECM Pod to jam enemy radar. In all the ranks but First Lieutenant, you must request your weapons from the crew chief. Only if the requested armaments are available (sometimes they're out of stock!) will they be placed on the plane. Be forewarned, maneuverability is decreased as more weapons are mounted, so your choices should be determined by the type of mission you're about to undertake.

As you plunge deeper into hostile territory, there are different screens from which to view the outside world. Of course, there's the main front view through the cockpit window. Even that view, however, can be adjusted so that all of the instrument panel is neatly hidden out of sight, leaving only the Heads Up Display (HUD). This

enables most of the monitor to be filled with the out-of-the-window view. There are also views to the left, right, behind, from the tower, tracking view, and from a satellite looking down on the action. In the heat of battle, all of the different views will be utilized as you struggle to monitor the activity of the enemy.

In terms of instrumentation and features, the F-16 is loaded with them. The cockpit has a Heads Up Display where the following data is only a quick glance away: "G" force indicator, altitude, heading, airspeed, mach indicator, max "G" force indicator, flight path ladder, velocity vector, distance to target and waypoint indicator, and directional indicator. If you have selected an air-to-air missile to launch against a MIG, then the following items also appear: discretess (designates whether or not your missile is armed or locked onto a target), target designator, five mile radar range scale, in range indicator, aiming reticle, aspect angle indicator, distance ranging scale, and target locator line. The HUDs for the other types of weapons contain variances in the items listed above and each one is unique:

Instruments A Plenty!

The cockpit instrumentation panel comes complete with a radar/map screen, rpm gauge, nose wheel/landing gear system, angle of attack indexer/indicator, attitude director, threat warning system, afterburner, master caution light, stores control panel, indicators for flaps, wheel brakes, air brakes, auto pilot, and stall warning alert. The views from the left and right sides of the cockpit also feature indicators for damage suffered by

your jet, yaw, pitch, fuel, compass, landing gear lights, and backup airspeed gauge.

With all of the above at your disposal, it's easy to see why reading the 130+ page manual is essential for successfully controlling the F-16. Well organized and filled with illustrations, the book goes into detail on each item or system mentioned above. There's even a guide to fighter jockey terminology at the end.

Fly & Fight

Although taking off from the base and journeying out on a mission is one way in which to encounter enemy planes, *Falcon* provides another method in which you can immediately engage a MIG for training on different air combat maneuvers. Some exercises you can select are the Immelmann,

scissors, break, dive loop, and vertical loop. The maneuvers can also be flown with the path you are to follow literally outlined in the sky by the use of rectangles. Fly through a series of rectangles to perform the maneuvers.

If you have a friend with an ST, Amiga, or Macintosh, you can dogfight with them using either a null modem serial cable or Hayes compatible modems. This feature, as well as certain sounds/graphics and the "Black Box" (records your flight path), are only available on STs with at least one megabyte of memory.

Falcon is a game I highly recommend. Its graduated level of learning permits the user to slowly learn the many facets of the program without being overwhelmed and overmatched at the outset. All graphics, movement, and sound are well-programmed

to produce an engrossing simulation. The only glitch in the program is that the disk drive busy light remains on after the software has loaded. Although the drive isn't spinning, it is a nuisance. A call to the company revealed that the programmers were looking into it. I was also told that they're planning on releasing a new mission disk before the end of the year.

By the way, that convoy of trucks starts rolling down the road in the enemy quadrant that lies due north of your base. Go get 'em!

Available from Spectrum Holo-Byte, 2061 Challenger Drive, Alameda, CA 94501, (415) 522-1164. Joystick optional. Color monitor only. 1 meg needed for all features. List price: \$49.95.

Next month: Spectrum Holo-Byte's *Orbiter*, a space shuttle simulation.

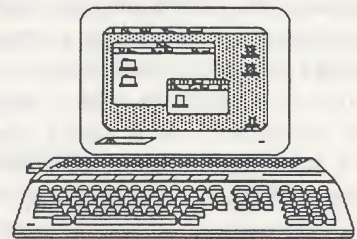
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VersaSoft Corp has updated its *dBMAN* product with a new release. *dBMAN V* shipped in November, not long after I had reviewed version 4. While previous upgrades were largely matters of bug fixing and tuning, *dBMAN V* breaks new ground, although not radically. The progress is along the lines of a vintner who starts out doing table wine and then decides to try oak barrels to bring more subtlety and complexity to his product. Fancier labelling can't hurt either.

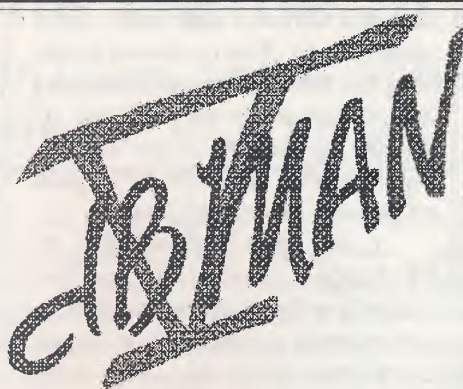
What's New

The existence of a short manual, "Atari ST Release Notes," along with the new softbound reference documentation is a clue that VersaSoft is serious about supporting a wide range of machines. The IBM and Macintosh versions are pretty hard to track down, though. Retailers seem to prefer more expensive products. At around \$180, in stores, *dBMAN V* for the ST is edging toward the pricing typical of other power products like *Word Perfect*, *Superbase Professional*, and *Calamus*. Version 4 owners can upgrade for \$45.

The new features that I have found important are a brand new report formatter, a user-selectable command editor, a user-selectable startup procedure, a reliable compiler (a separate product), and a more GEMish feel in certain areas. Subsidiary features that I found less important include an application generator, an input forms generator, and new security features at the database, record, or field level.

I cannot judge whether the stated goal of complete dBASE III+ compatibility has been achieved, although I have seen indications that at least one serious (read very expensive) accounting package will be porting its code to the ST.

MS-DOS users should look into this because the price of the



Old Wine--New Vintage by John Barnes

developer's package (which includes the interpreter, the compiler, and the run-time engine) is much cheaper than the alternatives.

Reports Made Easi(er)

Most current users will find the new report generator alone to be worth the price of the upgrade. I find it a joy to create titles, establish relational linkages, group breaks, and body text with menu-driven dialogs, help from drop-down menus, and full-screen positioning of report items. Multi-file (relational) reporting is also supported much better. The instant preview feature is dynamite. Embedded command language operations allow much more complexity in report generation.

You must, however, be very careful when using the report generator because it alters your environment in ways you might not expect. The basic guideline is to install your databases and index files in the subdirectory containing *dBMAN V* and its host of auxiliary files. Those people who use *dBMAN V* with floppy drives are probably going to be unhappy.

The documentation on the Report Writer is extensive, but it requires careful reading and rereading. The examples provided

by VersaSoft are a big help here, as are the tutorials that form a major part of the manual.

The .FRM file that the report writer creates looks like compiled code so that the REPORT FORM command runs quite fast. It would be nice to have a plain text version of the code available for tweaking and as documentation.

The New Bottle

The somewhat tweedy looseleaf documentation has been replaced by a nicely printed softcover book. This may be a form of piracy protection because it is harder to photocopy. I miss the looseleaf format because it was easy to keep the book open to a particular section without having to prop it open. The new book is, however, more readable.

I have always found the text well organized, although others may not like the reference book style. Important commands and sections are arranged alphabetically for easy lookup and there is almost always a useful example to highlight the command function or syntax.

I find the index somewhat inadequate because a number of terms are missing. These include "decimal places," and the names of the library functions. The split document format can be a little frustrating when you have to go back and forth to find something that is not indexed.

VersaSoft claims that they are not greatly concerned about piracy because no one can get anywhere without referring to the documentation. This is certainly true. It is also the likely reason that many *dBMAN* buyers have never gotten to first base.

Editing Made Enjoyable

In this new release, users who, like me, do not like the tacky

E-Macs style editor that *dBMAN* uses for the MODIFY COMMAND procedure can install their own favorite. I use *Tempus*, although others might like *1st Word* or even *Word Perfect* in the ASCII text mode. Tempus should work on a 520, but you might need a 1040 or a Mega for the others.

Make no mistake about it, database usage beyond the most elementary operations involves programming. Kudos to VersaSoft for making this as painless as possible. This should show other people how to play the game.

MODIFY COMMAND with a GEM editor installed is also a relatively painless way to get to your desk accessories from within *dBMAN*.

Starting on the Right Foot

The ability to preselect a procedure to be executed immediately upon startup is a huge improvement, especially for those who develop databases that others must use. I have seen many people freeze up completely when presented with the CMD: prompt at startup. You can now double-click on *dBMAN.PR*G (yes, Virginia, it's not a .TTP program any more) and the program can take you right to a menu shell for your own applications. Users who want a fully GEM-ized version of *dBMAN* can simply install the precompiled ASSIST.RUN program to gain access to drop-down menus for doing everything. Contact your local *dBMAN* guru for help on this customization.

I find this to be a very sensible approach to adapting a program to the needs of its users.

Compile It and Forget It

VersaSoft calls its compiler Greased Lightning. It is a separate product that can only be purchased directly from VersaSoft. I paid about \$100, but check before you buy. The directions for using this pro-

duct are very sketchy indeed. It is really meant for developers who wish to create stand-alone database products. Hi Tech Advisers (1-800-882-4310, Winter Haven, Florida) already market a line of business accounting packages built on this principle. I have also seen a point of sale application using compiled *dBMAN*. This may be a powerful foot into the door of the business world. Users who do not have *dBMAN* will run these applications using a run-time engine named GLEXE.TTP, which is distributed free with the applications.

I love it. The code runs fast, and the .TTP method is well adapted to operating in a batch or perhaps even a multitasking environment (a subject for future research).

The compiled code can also be executed under the *dBMAN V* interpreter. This is excellent for procedures that are used over and over again. This may prove to be the best method of all for helping people who are intimidated by databases, but who have to use them anyway.

The ASSIST and HELP functions are now executed as compiled procedures. These are much more compact and speedy than they used to be.

More for Mouse Fans

Many people have shied away from *dBMAN* because they did not regard it as a GEM product. In the sense that most GEM applications do not require the user to do any programming this remains true. People who can program, though, do have a nice set of tools to develop applications which can lead the mouse-oriented user quite nicely. This should make applications written in *dBMAN* more accessible to the general user.

The library functions for accessing GEM functions within

applications appear to be better integrated into the whole package than they were in Version 4. I have been pretty lazy on this score because I find that setting up the data structures for object-oriented programming is tedious whether it be in *C*, *GFA Basic*, *FORTRAN*, *Superbase Pro*, or *dBMAN*. You have to provide a lot of information before you ever see a result.

This brings us back to the issue of programming. The necessity of understanding complex commands (or looking them up in a book) and correctly typing them into a command line has long been a barrier to the use of *dBMAN*. Version 3 provided ASSIST.CMD, but the extra help provided in *dBMAN V* should be most welcome.

Three new tools, an Application Generator, a Session Generator, and a Screen Generator, are provided to help people get started with creating databases, opening them in applications, setting up screens for input data, and outputting reports. These generate program files in plain text that can be edited and incorporated into other, more complete, programs. These may prove useful as teaching aids for novices, but the process will still be far from easy.

Support

The support for the product is excellent. Bugs are continually being fixed (although I have always found the product to be pretty stable). New versions within the same level number (usually representing bug fixes or stability enhancements) are available by returning your discs with \$3 to cover shipping and handling. A fixed price schedule applies to upgrades from one level number to another. My experience has been that new versions ship within a reasonable time of their announced appearance.

An active electronic BBS provides current advice and personal

replies to problems. Eric Small has been unfailingly polite and responsive on those occasions when I have spoken to him on the phone.

Power Tools

This review is too tight a space to go into the really fancy things you can do with *dBMAN*. There is a trick to convert *DEGAS* and *NEOCHROME* files to *dBMAN* screens, but I have not yet figured out how (or why) to use it. Text editing in an external file is pretty easy if you use the RUN command to invoke your word processor. Indeed, you can do some very complicated things with the RUN command, especially if you use *dBMAN* to generate the shell scripts to carry out batch processing.

A multiuser version is available (for \$500) for people who need to do distributed database work in real time. I am not at all clear on how this works because it must run on some sort of network.

Only a very few CURRENT NOTES readers will want to avail themselves of this much database power, but the fact that it exists is very important. It means that there is a niche for the ST in serious work environments. It means that there are tools for developing applications that non-programmers will find useful in making productive use of their machines.

Needed Improvements

I do not like the way *dBMAN* handles its path assignments. If your .DBF and .PRG paths are altered you lose the benefit of ASSIST, HELP, and the Report Writer. This can be very annoying when you have many databases on a variety of hard drive partitions. I think they need to provide something better, perhaps with special entries in the configuration file. The Report Writer also messes up your environment when it is running and

I think this is bad.

Field locking should be made simpler for single users, because this can provide an important measure of security for data entry applications. The business of setting up a password table for a database is too complex, the way things stand now.

Conclusion

Despite its obvious strengths *dBMAN* is not the tool of choice for very many garden variety Atari users. By and large these people have not discovered relational database technology at all. Almost everyone I talk to gets by with a single list. Furthermore, programmers are a very scarce breed.

People have asked how I compare *dBMAN* with *Superbase*. *dBMAN V* is such an attractive enough product that I have trouble getting my juices up to program in *Superbase*. If the *Superbase* people could come up with a

better editing system and if their language system were not so obscure the situation might well be reversed. I give *dBMAN* the edge on raw, businesslike power and *Superbase* the edge in graphic and text applications. *Superbase* probably gets the edge on user friendliness for simple work. Some of its features get in the way after a while and it definitely falls behind when it comes time to build a fully integrated application.

My first Atari 1040 ST was bought 2 1/2 years ago largely on the strength of its ability to do relational database management and its ability to run *FORTTRAN* programs. The VersaSoft people gave me a good product to begin with and they have continued to support it and make it better over the years. What more could anyone ask?

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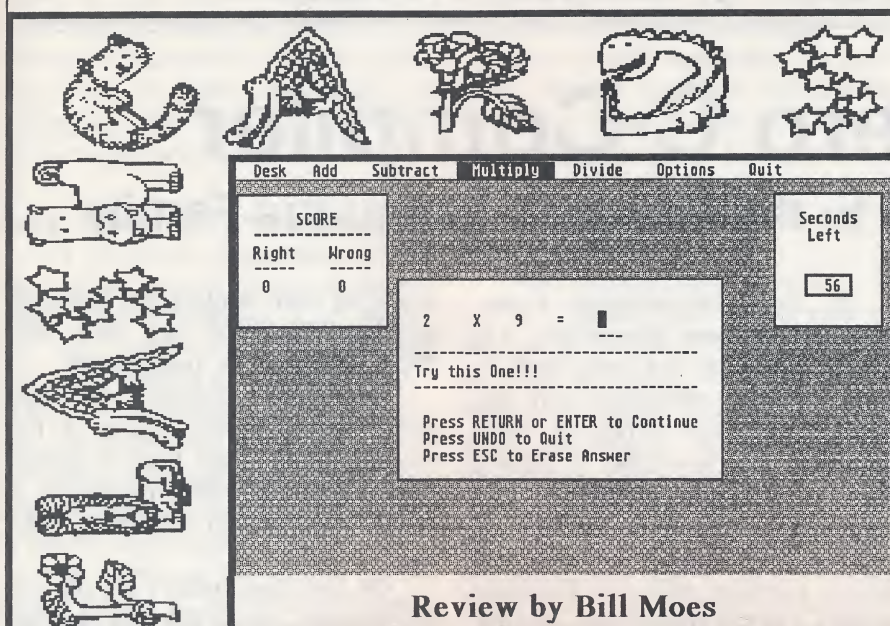
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Addition and subtraction each offer five levels of problems. The lower levels offer numbers up to five or 10. The highest level challenges with numbers up to 50.

Multiplication and division have each set of facts available separately. Everything up through the 12's will be shown for each set of facts. For example, the "3 Times" will have everything from 3X0 through 3X12. Not all school classes deal with the 10's, 11's, and 12's, but a little extra challenge probably won't hurt much. It's also possible to have all fact families (0 - 12) combined for a thorough test. It's not possible,

however, to select smaller groupings of facts: you can't try just the 6X? - 9X? fact families.

Key in answers using the ST's keypad. Three chances are given for a correct response. Unfortunately, it is necessary to press <ESC> to erase an incorrect answer. It's too bad that the program doesn't simply erase the wrong answer automatically.

My eight-year-old daughter, fighting her way through subtraction facts, enjoyed the program. She appreciated the positive comments after a correct answer and preferred using no options, although I think the timer can be a definite help in building speed and competence.

Flash Cards, written by Ray Grohowski and not copy protected, is available from the author for \$9.95 plus \$1.00 p&h. Grohowski's stated goal is to provide worthwhile software in the gap between public domain and \$40 programs.

Here is a clean program offering help in a most important learning area. Families with young children ... elementary classrooms: many could find great use for *Flash Cards*.

[Ray Grohowski, 3403
West Milham, Portage, MI
49002]

Multiply

1 Times
2 Times
3 Times
4 Times
5 Times
6 Times
7 Times
8 Times
9 Times
10 Times
11 Times
12 Times
All

Options

Special Effects

✓ Timer
No Options

Save Settings

With a monochrome monitor, this special effects feature is not available.

Instead of special effects, perhaps a timer. Set the timer to a number of seconds. Solve as many

as possible. Hurry! When the time is up, the screen will show the number of correct/incorrect problems.

It's also possible to have neither of these two options. Just solve the problems. No flash. No dash.

Option settings can be saved as defaults. These settings include length for the timer, the drive/folder for special effect pictures, and the current option selected.



Prospero C Compiler

A Solid Extension to the Prospero Language Family

Prospero Software from England is a unique contender on the Atari ST language market: the only house offering a *family* of high-level languages for our machine. Last year they introduced Versions 2 of their FORTRAN and Pascal compilers, both very well implemented, and now they are rounding out their language family with a brand new C compiler.

Does anybody need another C on the ST? The market is already quite crowded here: at least six different implementations, with two of them (Laser and Mark Williams) sharing most of the popularity--and justly so. Anybody coming up with a new C compiler has to offer something deserving attention if they want to give the competition a run for our money.

So what is Prospero's trump card in this game? What makes them think they will make it on this market? Three main points may (but do not have to) make this a C compiler of choice for many Atari ST programmers.

1. Overall quality of the software and documentation. Prospero Pascal and FORTRAN compilers are, I think, the best-behaved ones for our machine, and in a month or so of using Prospero C I still have yet to encounter any problem. The Prospero name is already a good recommendation for a product. What is especially nice here, however, is that we do not have to wait for Version 2 or 3 before we can really enjoy using it. This time they hit it right in the center (or very close to it) with Version 1, a not-so-common thing in the ST world.

2. Two-dimensional compatibility of their languages. It is not enough to put the same label on three different compilers and talk about a language family. In many situations the possibility of calling from a program written in one language, procedures written in another, may be quite valuable, and this is possible with the Prospero system. On the other hand, all their compilers work also on PC-compatible machines (under PC-GEM). So, as long as your code is kosher, portability is (in most cases, at least) not an issue.

3. ANSI compatibility. Many C compilers have useful extensions to the original Ritchie-Kernigan C standard, and many of these extensions were included into the (draft) ANSI standard of the C language. Prospero C, however, is the first and only implementation on the Atari ST fully conforming to the standard, and this may be a decisive factor for many buyers. (Nb. Turbo C 1.5 and Microsoft C 5.1 implement the ANSI standard in the PC environment.)

If you are thinking about buying a C compiler, should you then forget about the other implementations and buy Prospero's? This depends on your needs and personal preferences; I hope this article may help you in making the right choice.

Documentation

The four boxed volumes of enclosed documentation look quite impressive, indeed, totalling about 1000 pages. The first volume deals with the programming environment, the language standard and implementation details; the second describes, in alphabetical order, the

functions from enclosed C libraries; and the remaining two deal with GEM: AES and VDI, respectively.

The GEM volumes are very good; almost exact copies of the corresponding ones from Prospero Pascal and FORTRAN packages. It is very hard to find something better.

On the other hand, I am not too enthusiastic about the alphabetical order in which the C (Unix-like) libraries are listed (this is exactly why I don't think much about the Mark Williams C documentation). Grouping the functions according to the operations they perform would be, I think, more appropriate: usually we know *what* we want to do in our program, and not the *name* of the function used to do it (think about writing a letter in Swahili having only a Swahili-to-English dictionary). Well, I have the same complaint about the other C compilers, but from Prospero I would expect something more.

The presentation of the ANSI C standard in the first volume is brief, dry and formal to the point of incomprehensibility. If you know the standard quite well, you may find this description useful as a reference, but the job Prospero did in this aspect on their other compilers was *much* better. Again, this may be just nit-picking on my part, as neither Mark Williams nor Laser C present the language standard at all. In other words: not a great thing, but still the best available.

What I miss in the documentation is a description of low-level GEMDOS, BIOS and XBIOS functions. Some of them are implemented (and documented) under

different names in the C library, but many of the more Atari-specific ones are not. These are defined as macros in appropriate header files; even two or three sentences of explanation for each would make the package more complete.

Programming Environment

All Prospero languages share the same programming environment: a shell program from which you may compile, link and execute programs without leaving the editor. Everything is exactly as in their Pascal and FORTRAN compilers; even without having used the other Prospero compilers one does not need to refer to the manual. Nice.

The editor is all right, if not a speed wizard (I still think Prospero should think about buying the rights to use the Tempus code; this would be something!), except that reading of the source files is slower than anything else I have seen. Frankly speaking, I do not know how it is possible to make it this slow. This is,

however, a minor nuisance. The shell behaves very well, being quite intuitive and convenient to use.

The compiler and linker are a bit faster than in the Mark Williams C, but much slower than in the Laser C (nobody can beat the Laser here!). I have already developed a habit of going to the refrigerator after starting a compilation.

The compilation process is further slowed down by the size of include (*.H) files containing, in addition to all the pre-ANSI directives, the function prototypes (or, in plain language, specifications) required by the ANSI standard. This cannot be helped: you want ANSI, you pay for it. On the other hand, the prototypes saved me more than once from mismatching of function argument types. This was more than worth the extra compilation time.

In addition to the compiler and linker, the package contains also a good symbolic debugger (allowing for switching to and from the program output screen), a library

manager and a cross-referencer. They are almost exactly the same as in the other Prospero languages.

For those who, for some reason, prefer to work from a type-in command shell rather than from an icon/menu driven environment, stand-alone TTP-type drivers for compiler and linker are included.

Now, how does the Prospero C environment compare to its two major competitors: Laser and Mark Williams C? Mark Williams' insistence on using a command shell is something I don't like too much: yes, their command shell is a very powerful tool, but it is inconvenient and non-intuitive to use, requiring the user to memorize dozens of commands. A Unix person would not be happy with anything else, but we are talking about normal people here who do not want to start a new life from scratch just to compile a program (or a dozen).

The Laser shell is *very* smart, setting up the RAMdisk and keeping as much stuff in memory as it can.

What is the ANSI C Draft Standard?

Many of the ANSI extensions to the original R&K C standard are just standardization of those already incorporated into recent language implementations—for example, enumeration types or operations on structures (records): assignment, passing as parameters, returning from functions.

The most notable novelty in the ANSI standard is the introduction of *function prototypes*, specifying the result and parameter types of external functions. This would be nothing new for Ada, Modula or Pascal programmers (virtually all Pascal implementations allow for external subprogram specifications), but for C it is a rather unprecedented degree of type-checking.

Actual parameter types in a function call are checked against the function prototype. A mismatch

causes an appropriate conversion (if possible) or a compilation warning (if not, or if the mismatched argument is a pointer to a wrong type).

The program can still be compiled (following the "trust the programmer" principle), but in most cases, the incompatibility is a result of a programming error so that type checking saves us a lot of sweat during the debugging stage. Who among us has not experienced program crashes calling a function as **proc(x)** instead of **proc(&x)**??

Advantages of this feature, at first glance not very significant, increase dramatically with program size.

Another, frequently underestimated, aspect of the ANSI standard is the more precise definition of many "grey areas" from the original K&R. Those could be, and often

were, interpreted differently in different language implementations, causing portability problems in some programs. The code written in ANSI C will be certainly much more portable.

Finally, the K&R standard did not include the required libraries, which were (with some hints) left for the implementors to fill in. The libraries generally used under Unix became a de facto standard, now sanctioned (with some modifications and extensions) in the ANSI draft. Once again, the portability of programs will be significantly improved.

One may expect, that within two or three years, any non-ANSI-compatible C compiler will become obsolete and both professional and amateur programmers will only benefit from this change.

This gives it a tremendous speed advantage over any other language environment on the market. On the other hand, the price you pay for this is an occasional misbehavior (read: crash) and inability to co-exist peacefully with many of the useful accessories and other memory-resident programs. As compared to Laser, the Prospero C shell is like an old family friend: maybe not too exciting, but dependable.

It is difficult to make a clear recommendation here: your personal preferences may play a major role in making the right decision.

One thing missing in a package of this quality is the resource editor. You may have to spend an extra \$40 or so for WERCS (developed by HiSoft and available from MichTron) which, if not a very impressive tool, gets things done and comes with a nice manual. I would certainly like to see an RCS from Prospero, conforming to their high standards: the current choice between Atari, Megamax, Kuma and HiSoft offerings leaves a lot to be desired.

Compiler and Linker Performance

There is not much to say about these two: you call them from the shell/editor and they do their job. The compile/link cycle is quite slow, although a little faster than in Mark Williams C.

Under most circumstances, the speed and size of the produced code are more important than the speed of the compiler (unless it is really very slow, that is).

As far as compiled program speed is concerned, Prospero C delivers what one would expect: my benchmarks for Atari ST programming languages (*Current Notes* March, 1989) show that the Prospero code is generally about 20% faster than the other two implementations while the speed of floating point operations falls right between Laser and Mark Williams compilers. All these differences are too small to be of any real significance.

One of the few weak points in all Prospero language implementations is that a big runtime library is always linked in its entirety to the final program. This makes small programs in Prospero C much larger than their equivalents in, say, Laser C. For example, the benchmark program in Prospero C took about 40k, while the Laser version – only 15k.

This does *not* mean that Prospero C programs will always be two and a half times larger than their Laser equivalents (the relocatable BIN files often are, in fact, smaller). As my previous experience with Prospero Pascal has shown, this disadvantage disappears as the program size increases; programs in the 100–150k range may already be as space-efficient as these compiled with other compilers: the initial overhead gradually pays for itself.

Prospero tries to alleviate the size problem by providing two versions of their runtime libraries: full and short, the latter without floating-point operations. This helps some, but not very much.

On the other hand, the size disadvantage becomes important only when we compile a memory-resident program (e.g. a desktop accessory), usually quite small and sharing the memory with other programs. For most applications we would not notice it at all. Still, I would prefer a smarter linker.

Language Standard and Libraries

As I have already mentioned, Prospero C is the first full ANSI draft standard C implementation for the Atari ST. It has some extensions beyond the standard, but these (as in all Prospero languages) can be disabled if strict compatibility is required.

To about 170 Unix-derived library functions required by the new standard, Prospero added about 30 of their own (these numbers do *not* include the GEM AES and VDI bindings). This variety may be quite overwhelming for a newcomer to C,

but it certainly gives the programmer a quite impressive toolbox to use.

Prospero's choice of following the ANSI standard makes good sense: it may promote them from the position of new kid in the neighborhood to that of leader of the pack—at least for many programmers.

Mixed-Language Programming

Two extra specifiers can be used in function declarations and prototypes: **pascal** and **fortran**. Specifying an external function as **pascal** or **fortran** informs the Prospero compiler, that the (compiled) routine was written in the other language. This is important, as the order and mechanism of parameter passing will be different in each language, as will be the division of stack housekeeping chores.

In the opposite direction, specifying a function written in C as **pascal** or **fortran** instructs the compiler to compile it so that it will be compatible with (this means callable from) the other language.

In either case the linker has to be instructed to scan the libraries of both languages in the proper order (luckily, only one of the big runtime libraries has to be included).

Some programmers will not have much use for these features, some (I in this number) will. It is really very nice to be able to use – from a C program – my old numeric routines written umpteen years ago in FORTRAN, or my high-level AES toolbox procedures from Pascal, without having to recode everything. And, in reverse, it may be very nice to incorporate some delightfully short (and equally unreadable) C functions into a Pascal program, just declaring them as EXTERNAL.

This adaptability is—on the Atari ST—unique to the Prospero language family (their FORTRAN and Pascal linker and libraries were slightly modified about a year ago to allow for this; you may need an update, which makes sense

anyway).

On the other hand, sometimes I miss the option of in-line assembly, which is present in Laser C. True, Prospero languages are compatible with GST assembler, but it is usually much more convenient to enter just a few lines of assembly code in those very few places you may *really* need it, using all the other stuff as set up from a higher-level language. In most everyday situations, however, this is not a disadvantage.

GEM Libraries

Not much can be said here: all GEM functions are implemented in the standard fashion and everything seems to work properly. About 20 extra routines not present in the DRI standard bindings were added by Prospero, mostly to make some AES object operations easier. As I already have stated, the two-volume documentation of GEM libraries is generally first-class.

In addition to recompiling some of the example programs supplied with the package, I have ported into Prospero C a small (6-page) printer-setting program from Prospero Pascal. Everything went so smoothly that the project turned out quite boring. Some of the compilers I have used never reached this stage.

Pros and Cons

Having three good C compilers for our machine is a good sign: somebody will use them to write good application programs. On the other hand, the choice among the three may not be so easy.

There is nothing really wrong with the current v.3 of the Mark Williams C compiler. For the Unix aficionados it may even be the first choice (yes, you can use *Tempus* instead of *MicroEmacs*). But my feelings are divided between the Laser and Prospero implementations:

- ☆ The Laser compiler is really fast, with a clear edge over Prospero (or anybody else) –

on the other hand, I find the Prospero environment somewhat more robust and easier to use.

- ☆ Laser produces smaller programs (at least as long as they stay small in general), which gives it an advantage in developing desktop accessories. On the other hand, Prospero is ANSI-compatible and programming in it is generally safer.

- ☆ Laser has the in-line assembly option, but Prospero allows for painless mixed-language programming within its language line.

- ☆ Prospero's documentation is better, but Laser's is good, too.

- ☆ Laser C comes with an RCS, but the Prospero package has a debugger included in the price (\$150 recommended retail, possibly less when discounted).

To summarize: if you insist on the ANSI standard, Prospero C is the only choice. If you do not, take into account the above points and make the decision yourself. I do not do much C programming, but when

I do, I am going to use both compilers: Laser for smaller utilities and desktop accessories, and Prospero for larger stand-alone applications.

[*Prospero Software, 100 Commercial St., Suite 306, Portland, ME 04101; (800)327-6730*]

Small Updates:

Gribnif Software announced their update policy for *NeoDesk* (from v.2.00 or 2.01 to 2.02, mentioned in my article last month). Just send the original disk and a check for \$3 (and hope that they will not send you back your original disk not updated, as it happened to me!).

CodeHead Software updates the *MultiDesk* to Version 1.7 for \$5 plus the original disk. They include some new PD goodies by Mr. Johnson with the update – the HeadStart (replacing GEMStart with some improvements) in this number. Also, the newest versions of *MultiDesk* and *NeoDesk* work together without a glitch (originally they had some misunderstandings about who runs the place). The responsiveness of both companies to problem reports could serve as an example for some “big” software houses.

ANSI C – Recommended Reading

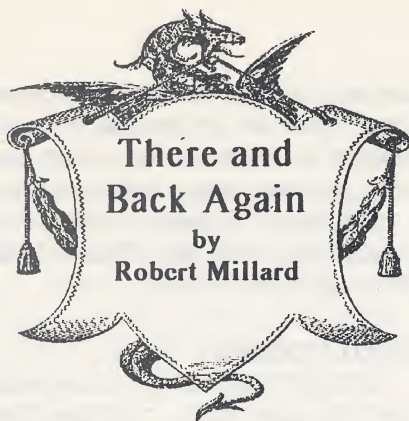
The second edition of Ritchie and Kernigan's book, *The C Programming Language* contains a description of the draft standard—but it is outrageously overpriced (\$45 hardcover, \$32 paperback—for 250 pages, with a huge market!). There is nothing there which could not be presented as well or better in other books. Two of those I can easily recommend:

Programming in Ansi C by S.G.Kochan, Sams & Co., 475 pp, \$25. Complete and readable; can be read with no previous knowledge of C.

C – A Reference Manual by S.P.Harison and G.L.Steele, Prentice-Hall, 400pp, \$28. Contains both the original K&R standard (with the common extensions) and the ANSI draft. An excellent in-depth presentation, especially useful for experienced programmers; devotes a lot of attention to portability and incompatibility issues and to C compiler implementation problems in general.

Here is a very inexpensive book I just recently found in a local Crown bookstore; it may deserve your attention:

The Waite Group's Essential Guide to ANSI C by N.Barkakati, Sams & Co, 230pp, \$7. Brief but well-organized; does not attempt to teach the language, but is useful as a quick reference.



KINGS QUEST IV

Affirmative Action

Adventure

A Monster of a Game

Sierra markets their games as 3-D animated adventures, but after fifteen projects in the same game system, avid gamers have given generic status to the company's name and efforts. ("What's that new game like?" "Oh, it's a little like a Sierra game." "Gotcha.") With the release of *King's Quest IV--The Perils of Rosella*, "Sierra games" finally have a comfortable interface and contemporary graphics. These refinements have been showcased in a monster of a game--three megabytes of music, animation, and, of course, those cerebral cortex--perplexing puzzles.

The Perils of King Graham's daughter, Rosella, occur in the land of Tamir. Rosie has accepted a *quid pro quo* deal: she will be transported from Davenport to faraway Tamir to find the cure for her dying father, but she must also recover another item or the other party won't be able to transport her back to Dad. Tamir is about thirty screens in size, but multiple screen locations like castles, caves, and houses flesh the game out to almost 100 screens, far bigger than King's Quest III. The EGA graphics and ST graphics are nearly identical, so the IBM illustrations on the box are an accurate indicator of what to expect. KQ4's art is vastly improved over previous work in the series. Nobody at Cinemaware is sweating, but this is nice stuff--color is particularly good.

Sierra really worked hard on improving the game interface, and they deserve a lot of credit for finally getting it right. Previously, this was a very frustrating aspect of Sierra games, but the refinements have actually made KQ4 gamer-friendly. Character movement and speed is improved, pop-up windows make command input seem transparent, previously loaded screens are buffered in available memory, and the parser has taken a course in manners. With three megabytes of code spread over four double-sided disks, this game could've been a real mess, but swaps are not too frequent. Expect game saves and restores to number in the hundreds before Rosie's quest is accomplished, though.

Feminine In Nature

Like designer Roberta Williams' previous games, the events in KQ4 are drawn largely from fairy tales. But there are many other literary and cinematic sources:

Greek and Egyptian mythology, Disney, The Wizard of Oz, even hints of Dickens and the Old Testament. There is a definite cuteness to the King's Quest series upon which gamers' tastes are divided. There is also a stereotypically feminine nature to KQ4 that feminists may not find appealing. Rosella's animation is very graceful, almost dainty at times, and there is a sexist sequence that probably should've been deleted. This is the first major adventure game to feature a female protagonist, though, so more good is done than harm.

When it comes to puzzles, The King's Quest series, especially III and IV, is a wolf in sheep's clothing. All that cuteness belies a game that can be very tough at times. Many puzzles are obvious, but only the best adventure gamers will complete the game without several hints. (This writer needed several hints--guess it's back to role-playing games.) There are also those infamous climbing sequences in the form of mountain paths and castle stairwells. It's possible for Rosella to fall to her death scores of times on these screens. The stairwell and mountain path screens are necessary to portray the game world, but Sierra needs to make some major changes in their playability. Most gamers' complaints about the KQ series are about these sequences.

The forty minutes of music in KQ4 was written by William Goldstein, a noted Hollywood composer. Played through the ST's sound chip, it is not as impressive as Ken Arnold's Ultima scores or Cinemaware's efforts, but the MIDI soundtrack is supposed to be quite impressive for those who have a Casio CZ-101 or Roland MT-32. Music doesn't play continuously through the game, rather it pops up in certain sequences as ear candy. Curiously, the title screen tune sounds a little like the figure skating music in Epyx's *Winter Games*.

Extended Animations

Sierra has trod somewhat into Cinemaware's territory by incorporating some film techniques. Recent Sierra games have included screen wipes and dissolves, but KQ4 also includes iris in and iris out screen swaps. The beginning and end are also extended animations that run about ten minutes each. Nice as these passive sequences are, they do not live up to their advertising hype as "computer cartoons." Still, these kinds of efforts are the harbingers of what CD-I will someday do for adventure and role-playing games.

As mentioned, the game comes on four double-sided disks, so SF354 owners are out of luck. Disk space has become a problem in converting the more sophisticated games to the ST. Cinemaware games suffer due to the single-drive dilemma, as seen most recently with *Sinbad and the Throne of the Falcon*. The situation is unfortunate, especially since the ST can otherwise hold more graphics screens than an Amiga of equal memory. Atari may have to step up that single drive conversion program if they want the ST to compete with the Amoeba.

KQ4 uses password protection only, so it can be played off a hard disk. Needless to say, that's a great way to go for a game this big. It's also playable on a monochrome monitor, if anybody cares. That used to mean something in Europe; perhaps it still does.

WARNING! THE FOLLOWING CONTAINS FULL ANSWERS TO THE PUZZLES IN KING'S QUEST FOUR. IT'S SUGGESTED YOU SCAN ONLY THE BOLD TYPE FOR THE AREA THAT HAS YOU STUCK, AND READ ONLY THAT SOLUTION.

Although King's Quest IV is not 100 per cent linear, the following clues are mostly in proper order to solve the game. You should save the game often under different names, in case you need to backtrack.

THE FROG POND--Drop the gold ball in the pond, which can be found under the little bridge south of this screen. Watch what happens, then pick up the frog and kiss it.

MINSTREL--Give him the book, which is in the large, deserted house.

THE POOL--Show yourself to Cupid. Take his bow.

PAN--Play the lute the minstrel gave you, then offer it to Pan.

DWARVES' TREEHOUSE--This is the aforementioned sexist sequence. Rosie has to clean those slob's rooms.

DWARVES' MINE--Solve their house before doing this. Return the pouch that was left on the table after dinner. Offer it to the same dwarf that brought Rosie her soup.

FISHERMAN'S HOUSE--Give the pouch of diamonds to the fisherman. He'll give you his fishing pole. Some trade, huh?

WATERFALL--This is a tough one. Wear the crown the minstrel gave you. Take the board on the next screen. Take the bones on the next screen. Light the lamp the dwarf gave you. Go east, south, south, east through the cave screens. The ogre will get you often. You need to arrive at a screen with a little bit of light visible in the northeast. Lay the board across the chasm. (This part is tough, since you can't see the

chasm.) Save the game frequently.) The cave leads to the swamp.

THE SWAMP--Jump on the tufts of grass to the next screen. Use the board again to get from the last tuft to the island. Play the flute Pan gave you to hypnotize the snake. Take the magic fruit and scoot. Go back the way you came, through the cave. Sorry about that.

UNICORN (Lolotte's First Demand)--Let Lolotte's henchmen capture Rosella in the southeastern screen of Tamir. Get the worm west or northwest of the same screen. Its appearance is random. Get the feather on Genesta's island three screens west of the fisherman's pier. (It's probably best to do this early in the game, before you meet Lolotte.) Catch a fish off the pier with the worm and the fisherman's pole. Swim west two screens and back until the whale swallows you. Climb the whale's tongue from the left to the top, hitting the right and up keys rhythmically. Tickle the whale on the uvula with the feather. Swim north to the deserted island. Search the boat on the right for the bridle. Feed the fish you caught to the pelican. Blow the whistle. Ride the dolphin back to Tamir. Shoot the unicorn with Cupid's bow. Put the bridle on.

DESERTED ISLAND--Search boat for bridle. Feed fish to pelican. Blow whistle. Ride dolphin.

THE OGRE'S HOUSE (Lolette's Second Demand)--Throw the bones to the dog. Get the axe upstairs. Hide in closet downstairs. Take the hen after the ogre falls asleep, and be quick. Return to Lolotte with hen. This sequence can be tough, but you just have to save a lot and keep trying.

THE EVIL TREES--Use the axe and they'll never bother you after that.

THE WITCHES' CAVE--Grab the eye while they are passing it to each other. Leave. Come back and take the scarab they offer. Throw the eye back.

THE DESERTED HOUSE AND GRAVEYARDS (Lolotte's Third Demand)--After you get the scarab, night falls. THIS PUZZLE ONLY OCCURS AT NIGHT. Pull the latch on the wall in the west room. Take the shovel in the secret room. Don't take the stairs yet. Find the baby ghost, then find its grave and dig. Bring the discovered object back to the baby ghost. Do this for each of the five ghosts that appear. Read the tombstones to find where to dig.

The shovel will break after five digs, so find the right spot. The scarab will automatically protect Rosella from the zombies.

The last ghost will lead you up a ladder to the attic. Give him the disinterred object, then open the chest. Take the sheet music. Go downstairs to the secret room and climb the stairs. Play the sheet music on the organ. Get the skeleton key. Unlock the crypt in the east graveyard. Climb down rope. Get Pandora's box. Go back to Lolotte.

ESCAPE FROM LOLOTTE'S CASTLE—Use the key Edgar brings, and go down the stairs. Go past the first sleeping guard to the next screen, and enter the northern-most room on the east wall. Open the cabinet on the right and get all your possessions. Leave this room, then head east, past the throne room to the east tower. Climb the stairs. Unlock Lolotte's chamber with Edgar's gold key. Shoot Lolotte with Cupid's bow. Take the amulet. Go back down the first flight of stairs. Enter the doorway, located on the left. Take the hen and Pandora's box. Go down the next stairwell and leave through the front of the castle. Release the unicorn by opening the gate in the middle. Go back to Genesta's island and give her the amulet. I left out one part you will have to figure out on your own to obtain a perfect score.

As always, if anyone has a question about The King's Quest games, or any of the games I've reviewed, I can be reached on GENie (R.MILLARD1), or you can write me, care of *Current Notes*.

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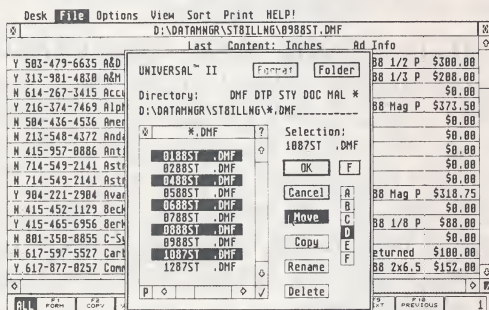
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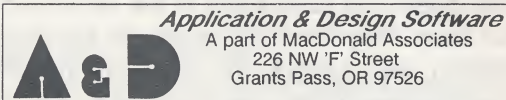
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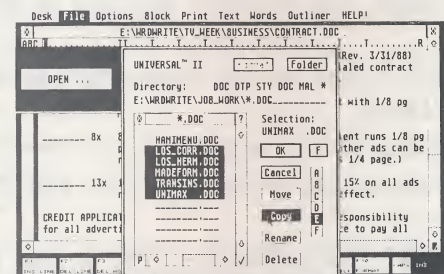
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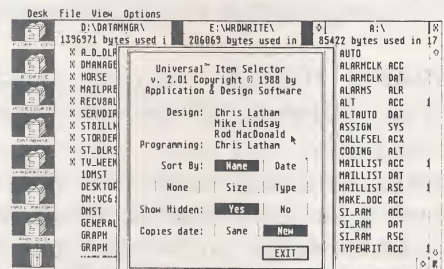
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Does Your Computer Have A.I.D.S.?

by David G. Grace

Special Agent for the United States

It's been a great winter in Pittsburgh, mildest this century. But it's been a great personal one as well. For instance, I received a Special Award from the Government for my part in the capture and conviction of a serial arsonist whose estimated 70 fires resulted in two deaths and over one million dollars in damage. He got back to back life sentences. I guess it wasn't a good winter for him.

But it was one particular day that seems to stand out. That morning, convicted murderer Ted Bundy did not receive a telephone call from the Governor. That night, I did receive one from Joe Waters. In between those events, I had a shocking conversation with a distraught Secret Service Agent.

To keep things in perspective, I'll relate the call from Waters first. He is the Editor of Current Notes, the highly regarded, Washington, D.C. area, Atari newsletter (better described as newsmagazine), inviting me to be a regular columnist for Current Notes, and become "nationally famous." I suggested that I was already nationally famous or he wouldn't be calling, but that I was more concerned over my loyalty to the Westmoreland Atari Computer Organization's WACO Printout. He said that it was no problem, just submit the same article to both publications simultaneously, and be a syndicated columnist. Well, that did it! As I agreed to share some future articles with Current Notes (I lack the time, talent or material for a monthly column), I kept hearing that "by line" running through my head. Surely, my Government award would then qualify me as "an award winning, syndicated columnist!" Well...okay.

Maybe not. But let's move on to the real business at hand.

Earlier that same day, I took the Federal Building elevator to the second floor cafeteria. There I saw a Secret Service Agent with whom I had worked on protection details during the recent Presidential Campaign. He was hunched over a table, staring straight down into a cup of black coffee. I attempted to engage him in conversation.

G: What's the matter? Nothing to do after the election? *[No answer. In fact, no movement at all. I got closer and spoke louder.]* Hey! What's the word?

This time he moved. With lightning speed, his meaty fist wrapped around my new power tie and yanked downward. My chin stopped just short of the table top. His head slowly turned toward me until we were nose to nose. I noticed that tiny beads of perspiration were in a thin layer over his entire face. I was reminded of that scene in the film "The Graduate," where a party goer buttonholes Dustin Hoffman and provides him with the cryptic word, "Plastics." There was the feeling of Deja Vu as the Agent, his grip unrelaxed and his wide eyes staring straight into mine, said one word, with a combination of urgency and terror.

S: Viruses!

Prying what had once been my tie from his still clenched fist, I sat down and urged him to tell me everything. He began talking slowly at first, but began to pick up speed as if he wanted to get it all out of his system. Since the election, he had returned to computer investigations, particularly hacker invasions of main frames where viruses were left behind to cause

havoc later. There had been some arrests in the past few months, but viruses were turning up everywhere, like in Government computers at NASA and the Defense Department, as well as some university mainframes doing research for the Government.

G: I got burned myself last month and I don't even own a hard drive. I downloaded a program off a BBS. I ran it with a floppy in the drive filled with about a month's worth of downloads. The program, without warning of any kind, proceeded to format the disk. The entire disk side was lost. None of the programs had been backed up.

S: It's the hard drives that are the real victims. Your program was self eliminating. The ones I worry about wipe out an entire library and are passed on long before they are activated. This allows rapid spread before the symptoms are noticed. Some programs allow only one "install" onto a hard drive, so even if you still have the original disks, you can never use the program on the hard drive again.

G: I saw a reprint of an article in the Keeping Pace newsletter called "Computer Giant to Enter Battle Against Virus" in their November 1988 issue. It described a new latex envelope for disk storage, called "Troyans," to protect against virus spread. The thin sleeve allows the disk to remain covered and protected, even while in the drive. A company called Pewlett-Hackard is allegedly selling them.

S: *[He smirked.]* He wasn't afraid to name names, was he? Sounds like an April Fool article to me.

G: That really stinks! April Fool articles should only be printed in April issues where people won't take them too seriously. I wonder if I'll get my check back from Pewlett-Hackard?

S: As an Atari owner, you have more important things to worry about, more so if you had a hard drive.

G: Like what?

S: Like A.I.D.S.!

G: Excuse me?

S: A.I.D.S.! Atari Invaded Drive Surprise! Maybe the worst virus of them all. Most viruses attack hard drives, some floppies. Some reproduce before attacking, others survive the attack itself. A.I.D.S. does all of the above and is usually fatal to your entire library.

G: Personally, I think that anyone catching that kind of virus probably brought it upon themselves. Probably had their hardware somewhere it really didn't belong.

S: Usually that is true. On occasion, it is passed via BBS or by some other direct interface.

G: It's not just limited to high risk groups?

S: No. Any Atari owner is susceptible. Actually it is a misnomer, as it can infect any machine and its source was outside Atari.

G: So, where did it come from?

S: *[The agent looked around the cafeteria and lowered his voice.]* You have the same security clearance I do, right?

G: Yeah. I won't tell anyone. *[Okay, I lied.]* So what is the source?

S: *[He lowered his voice further, to a bare whisper.]* It's the "C" word.

G: You don't mean it! From the Commod... *[I ducked another paw headed for my mouth.]*

S: Quiet! You never know who's listening. It migrated to the Atari community before its existence was discovered.

G: But how? Their software isn't even compatible.

S: It was those damn floppy disks. You know. Their version on one side and Atari on the other.

G: You mean the disks that go both ways?

S: The virus may have started in the public domain, but likely migrated to Atari on floppy disks from that other outfit.

G: Maybe we shouldn't look down too much on those other folks. The "C" word can crop up in the best of

families. My own brother for instance. Sure, he'll lure some unsuspecting friend up to his place under the pretense of playing one of those hexagon board wargames, like the Star Trek ripoff. Next thing you know, his hardware is out of the closet and he's showing off how he's written a program to do all the game's calculations, add sound effects, roll the dice, or determine outcomes on that "C" machine. It's embarrassing to even admit it now. I've tried to convince him to go straight Atari.

S: Of course, until recently, no one has tried to do anything about it. They've just assumed that those other folks are just enjoying an alternative computing style.

G: Has something occurred to change that?

S: Yes. Recently software companies have begun producing floppy disks that have Big Blue or the Fruit Company on the back side, instead of Atari. Once, those fundamentalist groups thought that the viruses were just God's way of saying we spent too much time playing games with our machines. Now that they've started getting the viruses, too, they're more concerned.

G: Maybe the viruses are just God's way of saying they take their machines too seriously!

S: Of course, the rich and influential folks who own those machines have the ears of the brass and now the Surgeon General is involved.

G: You must be joking! He's a medical man, not a hacker's helper.

S: I said they were rich and influential, not smart and logical.

G: Oh yeah, I forgot for a moment which machines they own.

S: Anyway, it seems the S.G. owns one too, and now he's jumped in with both feet. Trouble is, some of what he says makes sense. Unfortunately, the rest is also likely to be accepted.

G: Like what?

S: Abstinence. Not computing at all. Putting your hardware on hold.

And if the urge to compute is too strong, then at least limit the possible sources of infection, like using only factory fresh software received still in the plastic, and then only on one machine.

G: That's fine for some people, but you know there is a lot of public domain software circulating around on the streets. There are even user groups out there set up solely for the purpose of swapping software. Even the normal groups encourage free exchanges of disks or direct interfacing.

S: Not to mention the bulletin board systems. You were lucky. You got Hackers Simplex One. That one isn't as catching and the symptoms are just a nuisance. Hackers Simplex Two is much more severe, highly contagious and likely to recur at odd times throughout your computing career. You could have been exposed to A.I.D.S. and suffered memory loss, glitches and, eventually, a fatal crash which would have retired your hardware permanently.

G: A fate worse than death!

S: The S.G. did have one other warning, especially for those in high risk groups.

G: Which was?

S: Don't forget to use "write-protect" tabs and have them with you, even if you were planning to "read only" that night. Don't wait until you've logged on to some pay-as-you-play commercial board before you wonder what might be slipping past your modem.

G: I hate those things, so messy. And who wants to stop in the middle of great interfacing to put one on? I have a disk drive with a "write-protect" button for more convenience.

S: That's fine, but you have to keep remembering to push the button every time you turn the system on, or load a new disk, even if you don't have specific plans to interface. You were probably using that drive when you got burned before.

G: Beats the tabs anyway. I lost one while computing once. Broke off unexpectedly. Lost it in the drive. Never did find it. That's the problem with the one-size-fits-all world we live in today. Any other suggestions from the S.G.'s Office? Does he plan to put warning labels on any new hardware?

S: I don't know about that, but he did say that whether at a user group meeting, exchanging P.D. software on the street or just downloading from a BBS, you should always remember one thing. When you interface with someone else's hardware or software, you are interfacing with everyone that they have ever interfaced with.

G: Sounds scary, not to mention kinky.

S: Scary is right! Some of the fundamentalists are suggesting that those who have been diagnosed with a virus have their modems physically removed from their systems, guaranteeing no further spread. *[His head again lowered over his coffee cup.]* It gives me the shivers just thinking about it.

G: I don't even like my modem being touched by a stranger. But cheer up. You don't even own a computer.

S: *[His voice lowered nearly to a whisper again.]* I guess I never told you, but I do own one.

G: Which one?

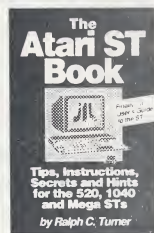
S: *[His voice was barely audible and quivering.]* I just can't bring myself to say the name, it's been in the

closet so long, but it's the "C" word again!

I left the cafeteria without eating. As I took the express elevator back to the twenty-first floor, I felt very good that the only interfacing I'd done was straight Atari. I'd see to it that I'd raise my kids the same way.

[A Special Note to subscribers of Current Notes: The author is an eighteen year veteran Federal Agent specializing in bomb and arson investigations throughout western Pennsylvania. He is also a member of P.A.C.E., an officer of W.A.C.O., an Atari computer advocate and a semi-professional actor. He considers his writing to be a cross between a conservative Ralph Nader, a long-winded Art Buchwald and a poor-man's Joseph Wambaugh. Recently, he became "an award winning, syndicated columnist."]

The 159-page *Atari ST Book*, by Ralph Turner, author of *ST Informer's Help Key* column, begins where your owner's manual leaves off. "Very



useful on every level, from rank beginner to the most advanced ST owner." (*ST Business*) "Genuinely helpful . . . multitude of tips . . . pure pleasure." (*Current Notes*) \$16.95 + \$2.00 shipping. Check, Visa/MC. Index Legalis, P.O. Box 1822-23, Fairfield, IA 52556. (515)472-2293

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The Junkyard Pussycat



By:
John
Barnes

The Junkyard Pussycat came to be a somewhat disreputable critter surrounded by masses of materiel (some useful, some not) because he spent too much money and time fooling around with Atari computers and software for them. Roaming around the junkyard gives him plenty of opportunity to turn up little tidbits to pass on to fellow Atarians.

Hanging in There—One item that makes the pussycat purr is *Phasar* from Marksman Technology. Version 3.02 of this versatile home accounting package features a new interface to *Tax Advantage*. Double Eagle Software's popular income tax preparation program. I have always been satisfied with the way *Phasar* handled my taxes, but I plan to look into *Tax Advantage* real soon because a little extra assistance in this sensitive area never hurts.

I looked for the MS-DOS version of *Phasar* so that I could give my brother-in-law a copy for Christmas. I didn't find it, so I had to order direct from Marksman. The list price of around \$80 makes *Phasar* competitive with *Managing Your Money*, but I have not worked with the latter product, so I cannot say which is better.

Version 3, in general, is a much more satisfactory tool than version 2.3 was. The editing of tax forms is much cleaner, the on-line help functions are much more helpful. Those of you who were put off by some of the purported problems with the early versions should reconsider.

If you do have an earlier version you should check with ANTIC publishing to see what you can do to update to the newest version.

I admit that I spend several hours each month at the job of entering data into *Phasar*. I do, however, feel that I know where my money is going and that there aren't going to be any surprises at tax time.

There are some more features that I would like to see, including: (1) import/export of tax forms to facilitate trading offbeat forms like the ones for state and local income tax, (2) direct importation of data into the register file to help folks who have been working with other programs, and (3) subsetting of income and expense categories to assist in tracking controllable cash flow. JP hereby awards a bag of catnip to Tom Marks for supporting his product even if he hasn't made a fortune on it.

Unrequited Love—One thing that has cost the Junkyard Pussycat more than a little fur is software that doesn't quite do what it is supposed to. *Word Perfect*

falls into this latter category. I tried bringing it up while I had *REVOLVER* installed in my Mega 4. The machine promptly went into a deep sleep. I don't think the problem is with *REVOLVER*, because I got a similar response from *WordPerfect* alone when I tried to design a form for purchase orders, where I was using the Math functions to keep the arithmetic straight. I also tried reading a text file of about 150,000 bytes from a disk drive (hard or soft, it doesn't matter). It read for a while and then the machine went off to La-La Land. *TEMPUS* has been reading this same file for months now. I buy software so that I can use it, not so that I can point out bugs for the manufacturer.

TEMPUS is another program that I love in spite of its vicious personality. This viciousness takes the form of grabbing up all of the memory in sight so that I can't even bring up my *DESKCART!* address book while I am using it.

A Nightmare Honeymoon—About three weeks after I got my Mega 4 I tried to wake it up one Monday morning. It came up all bleary-eyed (the monitor display was completely scrambled). My friendly Mega dealer (who is also a pretty good repair shop) promptly diagnosed the problem as an oscillator crystal that was suffering from a slow heartbeat (10 MHz instead of 32 MHz). Since the repair shop was relatively new in the Mega business Atari had not yet sent them their repair kit. Five phone calls and ten days later Atari Corp finally mailed out a crystal (at least they mailed it First Class). Five days later it arrived and my machine was back up. Atari's original proposal had suggested mailing back my mother board before a replacement could be shipped.

If this is the way Atari handles warranty repairs it is no wonder that no one in the business world takes them seriously. Suppose I had been an accountant with a payroll to get out? Suppose I had not had a spare 1040 ST to get my other work done while I waited for 15 days for a repair to be effected? Come on, let's get some spare parts in stock and build a relationship with repair facilities that allows them to turn warranty repairs around fast.

But, maybe I live in a "black hole" of some kind that annihilates semiconductors. It is going on four weeks that our microwave oven has been out of service because of a part that has to come from Japan.

An Illicit Affair—One of my clients at the lab where I work has loaned me a Macintosh IIX for six months so that I can port some code over to it so the client can analyze his data in the comfort of his own office. This is a really nifty machine. Using it has helped me to understand some of David Small's diatribes about the "Pascal Personality" of Mac developers. Their motto seems to be, "If we didn't think of it, you can't do it."

Simple little propositions that are built into Atari software require special modules on the Mac. Import an ASCII text file into *Microsoft Word* or *Aldus Pagemaker*? No way, without a special software module. Print a file

to the screen? Why would you want to do that? No, edit it instead. Do you want a legible display on the screen? Go immerse yourself in the mysteries of loading in fonts. Do you want to talk to a Postscript laser printer? It had better be an Apple Laserwriter or you will need another special piece of software. Do you want to move the cursor while editing? Use the mouse.

I'll have to admit that some of the stuff is well thought out. It's not too hard to get used to letting the machine spit the disc out of the drive at you. This should prevent a lot of stupidity. However, don't even think about trying to read a single-sided disk that has been formatted as double. Don't even think about trying to format a single-sided disk as double. The Clipboard concept is really neat.

On raw speed the MAC IIX, with its 68030 processor and 68881 math coprocessor, is right up there with powerful minicomputers. A 5000 line piece of FORTRAN code that does nothing but crunch numbers ran for 5500 seconds on the 1040 ST, 1100 sec on a VAX 11/730, and 663 sec on the MAC IIX. Window openings were lightning fast.

This machine had 256 colors on the monitor, which is important to the application we are working on. The Multifinder works for some things and not for others. If your foreground job is mouse-intensive you can slow the background job to a crawl. I tried some Kermit file transferring in the background while I was working with an image management program. Kermit couldn't take the suspense and timed out on me. No problem when doing simple editing tasks, though.

Considering the high cost of productivity software for the Mac, I think I'll stay with my ST for a while longer. If only I could make it walk and chew gum at the same time (I can, but not very well, but that is a subject for a future article).

Treat your Customers Right—One company that knows how to cozy up to its customers is Word Perfect Corp. The customers apparently like them enough to want to travel off to Orem, UT and pay \$500 to register for the first WordPerfect Conference. Demand is apparently sufficient so that WPCorp has scheduled not one, but four two-day sessions. The fee includes up to 13 hours of conference sessions, two luncheon talks, and two two-hour classes. I'm not sure that I would want to pay that much, even if it did mean that I would get to meet the founders themselves at a banquet.

All of this is conveyed wistfully, because sessions on the Atari ST (and the Amiga) versions are conspicuous by their absence. The magazine that I found all of this information in did have a letter from an ST owner who was begging WPCorp not to overlook users of non-MS-DOS machines. This February 1989 issue of WordPerfect magazine also contains an excellent overview on desktop publishing.

I must say that in several calls to WPCorp I have been treated with unfailing courtesy and I have been helped. That certainly helps to generate a feeling that they will make it right, somehow. This spirit is wearing a little thin among ST users, but it is the universal perception in other parts of the WPCorp marketplace.

Power With a Price—Since I bought *WordPerfect* for the Atari ST in October of 1988 I have received three updated versions. I have received them promptly, at the cost of a phone call and with no need to return original disks. If I count all of the money that I have sent in to Versasoft and Softlogik and add that to the original price of *dBMAN* and *Publishing Partner* I find that I have paid quite a stiff price. I expect to be shelling out more in the future. I could have spent a lot more if I had succumbed to the blandishments of assorted other vendors, but I didn't figure that their products were worth the aggravation.

From here on out I am going to do the best I can to avoid purchases where I am going to have to pay big upgrade prices to fix something that should have been right the first time. I no longer feel the need to be the first kid on the block to own the latest software sensation. The market is mature enough now so that the qualities that separate good stuff from the bad are known. The developers should forgo the hype and stay at their terminals long enough to give me a product that works the first time around. Charge me a fair price and give me some real support.

Consumers are always going to scream for something new but developers should, by now, have the sense to keep quiet until their products to meet this demand are known to work.

My colleagues here at Current Notes are a big help because I get the word on things like *Calamus* and *DynaCadd* in time to avoid costly mistakes. I only wish that other reviewers could be as objective and professional.

Of course I can say all of these things now because I already have software that does (almost) everything I want. The desperation that comes with needing to solve a problem quickly isn't there any more.

Who Owns an Idea?—In its March 6, 1989 issue *Forbes* magazine detailed some of the struggles that software entrepreneurs are suffering at the hands of companies like Lotus, Ashton-Tate, and Apple who threaten litigation against people making products that emulate the "look and feel" of their own. Windowing is, after all, becoming the dominant user interface for interactive computer use.

The article puts forth many interesting analogies, particularly when discussing the languages for communicating with products like Lotus 1-2-3 and *dBASE*. Just because someone writes a book in English, can they prevent anyone else from using the alphabet?

(Continued on Page 61.)



Stuck in a Rut

by Sam Wright

The Graphic Adventure: Transylvania

Transylvania is an old, old, classically old game from Penguin Software/Polarware, but it serves the graphic adventure genre quite nicely. While abundant on the 8-bit, a "straight" graphic adventure is hard to come by on the ST, perhaps because too much emphasis is laid upon the quality of the graphics; so much so, they act more as painting backdrops than essentials to the game. Transylvania, however, has one scene for every "room" and those pictures may contain clues to solving the game.

Transylvania must be searched for, but once found, can be purchased for as low as \$9.95 in either format. It's well worth it just to see another and increasingly rare aspect of the Adventure Game.

Characters

The victim is the fair princess, Sabrina. The goal should be clear: rescue her from the clutches of evil doers and ne'er-do-wells.

The two main antagonists that consistently bother you are the werewolf and vampire. Thus, you should kill them as soon as possible (where else but in a game can you say that?). Stay true to the legends and you should fare well. In the vampire's case, be aware there is one object that he will always avoid. If you have it, he will avoid you. It's, therefore, logical that if he avoids you, you'll never be able to kill him. As for the werewolf, there's only one thing he fears: the vampire. So deathly afraid of him, the werewolf won't even step into the vampire's lair. Both the werewolf and vampire will not harm you immediately. They'll show up and give you one move to do something before they decide to have you for dinner. You should either run away or kill 'em unless

you feel especially masochistic. Courteous of them to give you the chance to decide, eh?

The frog, goblin, and cat have or contain or are withholding information that is valuable. They're friends no matter how indifferent and unhelpful they seem to be. They just need an extra push.

Objects

Barring a few red herrings which aren't used at all, once you use an object its use is useless. Because you can only juggle a certain number of objects with two hands, it's advisable to drop an object once you've used it.

Examine everything, even things not listed in the text but viewable in the pictorial location.

Locations

As always, mapping is useful. There are no mazes or infinitely repeating rooms but a few rooms are bigger than you might expect. Map accordingly.

Typing "IN" and "OUT" are easier and faster shortcuts to "ENTER HOUSE" or "LEAVE HOUSE."

On occasion, an eagle will pick you up and drop you wherever it chooses. It's nothing to worry about, just an annoying setback.

Questions and Answers

Q. I'm stumped at the very beginning! What does the stump say?

A. In its drugged stupor, it's not saying much of anything.

Q. There're a bunch of rocks in front of a cave entrance and inside another large dark cave. Do they form some sort of passageway or contain a secret entrance or is it just the same cave or can I move the rocks or can I pick up just one or is there something hidden beneath the rocks or are they there for decoration or a symbol of what's yet to come or food for the enormous rock



monster?

A. What was the question again?

Q. What's the note for?

A. To get at the correct pitch? If it's still dark outside, you're safe. Rather, Sabrina's still safe.

Q. What can I do inside the log cabin? I just see a fireplace and a moose.

A. I know moose and that's no moose!

Q. I just see a fireplace and a deer.

A. Why are there no plural forms of "moose" or "deer"? Or "elk" or "bison," for that matter? Because they're

herbivores? But that's beside the point. The real question is whether the deer's male or female.

Q. Oh deer, the werewolf keeps appearing.

A. Smile and move on or grin and kill him.

Q. How do I get through the locked door inside the cave?

A. Search me.

Q. What should I do with the book?

A. It's your ticket to escape but don't waste your mind; you're still able to read it.

Q. What's the significance of the statue?

A. Look into something that foretells the future.

Q. Why does the gravestone have my name on it with today's date?

A. Keep asking questions and you'll be in there sooner. But wait, what if it's not empty?

Q. The owner of the house hates moose and deer. How should I appease him?

A. Smile and grin, pilgrim. And compliment him on his resemblance to Ed Begley, Jr.

Q. Is the stale bread useful?

A. Save it for later, little girl. You and Hansel should be

lucky you're not lost.

Q. Should I shatter the window?

A. What kind of hospitality is that? Do you want to be arrested for breaking as well as entering?

Q. How do I get the goblin's key?

A. Hocus-pocus. Abracadabra. Plough.

Q. Oh moose, the vampire keeps appearing.

A. Grin and move on or smile and kill him.

Q. How do I get the ring from the coffer?

A. Perhaps you could inherit it.

Q. I'm back outside. I've followed all the instructions and lo and behold, there's a flying saucer there! What should I do?

A. Try a third-kind close encounter and then hightail it back up to the castle. Your nerves should no longer be shaking.

Q. I've got Sabrina.

A. Save that for your private memoirs.

Q. But what should I do with her? Er, I mean, where should I take her?

A. "Well, it's not far down to paradise. At least it's not for me. And if the wind is right..." – Christopher Cross.

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TOMAHAWK

Review by C.H.E. Firewick

"This new release from DataSoft puts you in the cockpit of a U.S. Army AH-64A Apache, the world's most menacing Hunter Killer helicopter.

The Apache was designed to be the deadliest attack helicopter in the sky. And it has just one mission: seek and destroy aircraft, tanks, artillery, buildings, anything unlucky enough to stand in its way. The Apache's impressive array of weapons, and unmatched maneuverability make it the toughest air-war fighter going!

Features include 3-D, real-time graphics and display; offensive and defensive flight maneuvers; ground attack and air-to-air interception, day and night vision systems; instrument-only flying; and complete weapons system.

Tomahawk tests your instincts, reflexes, and nerves while challenging you with extraordinary flight and battle stations."

The above paragraphs are from DataSoft's 'hype sheet' for *Tomahawk*. Unusual as it may sound, the program is all they claim and perhaps a bit more. To start off, the ship is a breeze to take-off and fly (as compared to my son's HUEY helicopter simulator). The controls are simple (single key), straight-forward, and nicely laid-out. The joystick is also simple: LEFT = roll left; RIGHT = roll right; FORWARD = pitch down; BACK = pitch up; fire button = shoot.

Tomahawk has all of this plus the 'DASE' (Digital Automatic Stabilization Equipment) computer system which returns you to level flight (provided you don't exceed the limits), instead of the 'normal' simulations that have you fighting with the controls all the time. This is not to say the helicopter flies itself, but it does make the job easier and gives you more time to work your real purpose—blowing up the enemy!

If you have tried any other helicopter simulations, you may find these controls simpler due to their graphic orientation. Of the twelve displays on your console, only two of them truly deal with numbers. The Pilot's Visual Display has five number displays: a) speed (in knots)—in yellow for forward and blue for reverse; b) Altitude (in feet); c) Estimated Time of Arrival (in hours and minutes); d) Vertical Speed Indicator (in feet per second); and e) Range (to target/destination). The other one is the Doppler Navigation Compass. It has four items: a) Heading; b) Bearing; c) Track; and d) Doppler mode and number. All items are nicely described in the 17-page manual.

While new controls take getting used to, I was able to lift-off and fly around (without crashing) in under ten minutes (this was my first aircraft simulation). This was

in mission #1, which is flight training. This gives you the chance to acquaint yourself with the *Tomahawk* and search for and shoot the ground targets (eight in each sector) without being fired upon from ground or hostile aircraft.

Missions #2 through #4 are combat sections. These range from a limited engagement of four sectors to clear (#2); to being totally surrounded and needing to clear the map of the enemy (#3); to a strategic battle for the entire map, in which you aid in the front-line battles to clear occupied sectors (#4).

The OPTIONS page lets you choose a wide variety of missions, conditions, and levels of pilot experience, including turning off the sound. One of the nicer features included in the game is an option to abort anytime during play and return to this menu. So, if you pick something over your head, you can quickly get out of it!

The controls include some automatic audible warnings. One is for diving. Maximum speed is 197 knots. Then you will hear a warning (beep-beep-beep). At 210 knots you shed a rotor blade. The other warning is for overtorquing the engine (beep, etc.). After awhile (15 to 30 seconds) the engine will die. The manual says the engine will cough oil and die, but I saw no oil although it would have been a great touch! At least you don't get the cracked windshield until you actually hit the ground, and you can shoot all the way down if you like.

You have a choice of three weapons, each having its own style of sights—diagonal, vertical/horizontal, and square sights respectively:

- ♦ CHAIN GUN – 2000 ft. range, 750 rounds per minute, 1200 rounds at full load;
- ♦ ROCKETS – 4000 ft range, unguided type, 38 at full load;
- ♦ MISSILES – 3.1 mile range, laser-guided auto-tracking hellfire missiles, 8 at full load.

You select which one to use by pressing 'P' till the sight you want is on-screen.

The failure status panel gives you a quick way to check the status of ENGINES, WEAPONS, NAVIGATION COMPUTER, and TADS (Target Acquisition and Designation System). Also, a helicopter icon (top-view) will flash (or a portion of it) if you take a flack hit. The cure is simple and is the same for refilling your weapons—go to the nearest landing pad (friendly) and set-down, shut off the engine, and it's fixed and/or reloaded!

The graphics are done in fractals and give that three-dimensional look to mountains, trees, and buildings as well as to field guns, tanks, and enemy helicopters. The manual talks about blowing up buildings, but I was unable to in Mission #1 (and too busy in higher missions). Don't let the fact that they

don't blow up lead you to believe they won't harm you. Since it wouldn't blow up, I tried to fly through one...CRASH!

You can fly around the mountains and through the passes in between them but practice for awhile first!

As I said earlier, there is a map. It is divided into sixteen rows of eight sectors. Each sector has eight targets (enemy) to give you a total of 1,024 enemy targets to outgun. This doesn't include enemy helicopters, which continually harass your efforts. Moving from sector to sector is quicker if you use a feature of the map mode. While on a landing pad you go to the map and then use the joystick to move the copter icon to another sector. It's a nice way to frustrate the enemy copter. Wait till one is coming. Land or be already on the ground. When he comes, go to the map and move your icon 2, 3, 5, 10 sectors, and then you have some breathing room to polish off the ground forces. Just try to save one of the Hellfire Missiles for him.

As easy to fly and as maneuverable as it is, aerobatics are not recommended. Of course, this pilot gave it a shot—with unfortunate results. The limitations are stated as follows:

PITCH—plus or minus 90 degrees; and **ROLL**—plus or minus 110 degrees. The ship may have been able to do a roll or a loop, but the controls and indicators only go as far as the limits! Even at heights of 13,000 plus feet, I could only travel within those limits. You can roll to upside down, but it won't go any farther. I still had enough room to wait a bit and then recover the roll to rightside up. A loop is even worse! You climb up (or down), and it does an automatic roll, during which you get stuck and can't recover. The power seems to be there, and you can give yourself enough height, but it seems you are limited by the readout gauges.

Tomahawk is even programmed for autorotation. This is when your engine gives out, or you shut it down (shame—shame). I have only had limited success with this, but it does appear to be a viable feature.

For those who would like to know how high they can go—on a full tank, straight up, maximum rise (collective), ceiling is 13,420 feet. Unfortunately, it takes over half an hour to get there, and then you are out of fuel!

Besides the manual you get a quick reference card with information on both sides. This would have been much better if it were single-sided and on stiffer paper. You also receive a three-page fold-out poster that has a great deal of information about the Tomahawk and helicopter aerodynamics, and some tips on air-to-air combat with illustrations.

Now that I have covered the pluses of the game, let me move on to the shortfalls that I haven't yet mentioned, as these are important in their own right,

not minor inconveniences:

- × The use of joystick port #2. This is just from the standpoint of us dummies who try to run the program without reading a manual to see how friendly and easy a program is to use.
- × The SLOW response to keyboard input. Now, I know this program is doing a lot of math to deal with the fractals and stuff, but if you're in a hurry to change guns or radar modes or whatever, watch the screen to make sure things are what you want before you lift your finger off the key.
- × No SAVE feature. This is the one that irks me to no end. There is a pause/resume feature, but if you do not have the time to do an entire war (they estimate 10 minutes per sector, like 2 to 3 hours), or if you need to interrupt a session, you are out of luck!
- × Gun loads—it would have been a nice feature to be able to have the current loading style/types as a default but be able to design your own loads within a weight limit. I believe that is the way it works in real life—different loads for different jobs.

Even with the above discrepancies, this is one game I won't be setting on the back shelf, although I hope the manufacturers will come out with an update.

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Junkyard Pussycat (Continued from Page 55)

Ashton-Tate and Lotus, in particular, would like to prevent others from using "their" languages to develop programs that out-perform the originals. Now that their next generations of products are having trouble getting off the drawing board they have decided to use the courtroom rather than the laboratory to assert their dominance. They tend to forget that others were the first to use these languages, if in a rudimentary form.

Congress needs to grapple with this problem again because software is different from a novel (protected as a particular expression of an idea by copyright law) or an incandescent light bulb (protected by patent law as a functional work). America's competitive position in this area depends on the freedom of creative people to improve the state of the art as long as they do not simply slavishly appropriate the fruits of some else's labor.

Atari users are all too well aware that no one software product does everything. We are also well aware that companies who fail to improve on their products soon fall by the wayside. Let one hundred flowers bloom.

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RAINBOW

Thanks to ACE of Salt Lake for this tiny program. From the top left of the screen come blue, diagonal lines. When the screen is filled, they begin undulating a variety of colors.

```

10 REM RAINBOW
20 REM ACE OF SALT LAKE
30 GRAPHICS 15+16:COLOR 3
40 FOR X=0 TO 159 STEP 8
50 PLOT 0,0:DRAWTO X,191
60 NEXT X
70 FOR Y=191 TO 0 STEP -8
80 PLOT 0,0:DRAWTO 159,Y
90 NEXT Y
100 FOR I=0 TO 21:READ A:POKE 1536+I,A:NEXT I
110 A=USR(1536)
120 DATA
173,11,212,201,32,208,249,141,10,212,142,24,208,232,2
32,208,246,142
130 DATA 24,208,240,232
140 END

```

RAINBOW2

See a rainbow border around one's text screen.

```

1 CT=0:X=8:REM BACKGROUND
2 CT=CT+1:READ Q:IF Q=-1 THEN 40
3 POKE 1663+CT,Q:GOTO 20
4 Z=USR(1664,X)
5 END
6 DATA
104,104,104,168,232,142,10,212,138,153,18,208,169,6,205
,31,208,208,241,96,-1
10 CT=0:X=8:REM BACKGROUND
20 CT=CT+1:READ Q:IF Q=-1 THEN 40
30 POKE 1663+CT,Q:GOTO 20
40 Z=USR(1664,X)
50 END
60 DATA
104,104,104,168,232,142,10,212,138,153,18,208,169,6,20
5,31,208,208,241,96,-1

```

RAINBOW3

Fifteen vertical bars of color are formed from left to right. After they are completed, they constantly change colors.

```

100 REM GTIA TEST
115 GRAPHICS 10:FOR Z=704 TO 712:READ R:POKE
Z,R:NEXT Z
116 DATA 0,26,42,58,74,90,106,122,138,154
130 FOR X=1 TO 8:COLOR X:POKE 765,X
140 PLOT X*4+5,0:DRAWTO X*4+5,159:PLOT
X*4+1,159:POSITION X*4+1,0:XIO 18,#6,0,0,"S:"
150 NEXT X
230 FOR X=8 TO 15:COLOR 16-X:POKE 765,16-X
240 PLOT X*4+5,0:DRAWTO X*4+5,159:PLOT
X*4+1,159:POSITION X*4+1,0:XIO 18,#6,0,0,"S:"
250 NEXT X
300 COLOR 0:PLOT 65,159:DRAWTO 0,159
400 FOR X=1 TO 8:Z=PEEK(704+X):Z=Z+16:IF Z>255 THEN
Z=26
420 POKE 704+X,Z:NEXT X:FOR Y=1 TO 5:NEXT Y:GOTO
400

```

GRAPHICS

This demo by P. Budgell presents a series of small, colored boxes beginning on the perimeter of the screen and filling in (as diagonal lines) toward the center. Notice the diamond shape of the negative space. The finished design would make for a lovely pot holder.

```

10 REM GRAPHICS 10/7 DEMO
11 DIM DLI$(32)
25 DIM
C(6):C(0)=0:C(1)=2:C(2)=3:C(3)=9:C(4)=10:C(5)=11:C(6)=8
30 GRAPHICS 7+16:GOSUB 40:GRAPHICS 7:GOSUB
1000:GOSUB 40:GOTO
30
35 REM
40 POKE 623,128:REM GTIA GR.10
44 POKE 87,10:REM FOOL SCREEN HANDLER
45 REM
50 POKE 704,0:REM COLOR 0
60 POKE 705,12:REM COLOR 2
70 POKE 706,38:REM COLOR 3
80 POKE 708,98:REM COLOR 9
90 POKE 709,146:REM COLOR 10
100 POKE 710,200:REM COLOR 11
110 POKE 712,250:REM COLOR 8
120 REM
130 FOR CL=0 TO 79:TRAP 160
135 COLOR C(7*(CL/7-INT(CL/7)))
140 PLOT 0,0:DRAWTO CL,95

```

150 PLOT 79,95:DRAWTO 79-CL,0
 155 PLOT 0,0:DRAWTO 79,CL
 156 PLOT 79,95:DRAWTO 0,95-CL
 160 NEXT CL
 200 FOR X=1 TO 500:NEXT X:RETURN
 1000 RESTORE 10000:FOR X=0 TO 31:READ I:POKE
 ADR(DLI\$)+X,I:NEXT X
 2500 POKE PEEK(560)+256*PEEK(561)+84,141
 2560 POKE 513,INT(ADR(DLI\$)/256):POKE 512,ADR(DLI\$)-
 PEEK(513)*256
 2570 POKE 54286,192
 2900 ? " THIS IS GRAPHICS 10/7"? " P. BUDGELL 1983"
 3000 D=PEEK(16)-128:IF D<0 THEN RETURN
 3010 POKE 16,D:POKE 53774,D:RETURN
 10000 DATA 72,169,0,141,10,212,141,27,208,141,26,
 208,169,144,69,79,37
 10001 DATA 78,141,24,208,169,10,69,79,37,78,141,
 23,208,104,64

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Star Raiders II

Review
by
Ron Peters

This game, by Atari, is probably the hardest I have yet to review. Not that I didn't like it. I did—too much! Each time I sat down to write the review I spent all my time blasting Zylon fighters.

If you thought the original version of this game was a classic, wait till you try this one. It's like comparing a skinny, underfed orphan to Marilyn Monroe. The graphics are excellent. I'm amazed as to how much Atari can cram into 48K of memory (shades of Marilyn).

You are looking out the battle window of your new Liberty Star fighter, the hottest machine since the Lamborghini (and much less expensive). You can see the surface of the planet you are orbiting and the sky above (usually filled with enemy fighters).

Below the battle window is your fighter control center, with energy level, weapons selection and stores, tactical scanner, and various computer and communications monitors displayed. Above the battle window is the score box and message window.

Your joystick controls speed and altitude, along with fire control of the Pulse Laser Cannons for the Zylon Fighters, Ion Cannon for the Destroyers and Command Ships, and Surface Star Bursts for the bombing attacks on the Zylon Attack Bases. This baby has more firepower than a pyromaniac with a case of matches!

It doesn't take too much practice to handle the Zylon Fighters, but the Destroyers and Command

Ships are another story. A lot of patience and luck, combined with what little skill I have, finally enabled me to get beyond being assigned to the garbage scow for losing my ship.

Also, your keyboard commands the selection of weapons, tactical radar mode, shield deployment, difficulty level (I never got beyond 1), system chart (map of the galaxy), and pausing the game.

The system chart is your Triple-A map, and displays the planets, attacking Zylon squadrons, space stations, and the dreaded Procyon Star System where Chut produces and launches his squadrons of fighters and other nasty weapons of destruction. Moving around the galaxy is simple, by merely pointing to where you want to go and hitting the joystick button to engage the Warp engines.

The real skill in this game is using strategy to wipe out the Zylon Attack Bases, which produce flying weapons faster than Nixon can erase tapes. Unless you do this, you are faced with an endless array of enemy attacks that will finally damage your shields and toast your pilot's seat to an awfully uncomfortable temperature.

The only irritant in the whole scheme is the rapid rate at which you use energy and have to "warp" back to a space station for more gas (or whatever fuel that thing uses) and repairs. It sometimes seems that you do more commuting than shooting.

However, there is a little-known trick of re-energizing in mid air, with the high probability of melting down your Liberty Fighter into a key chain if you fail. This option is alluded to in the manual, and I'll let you have the fun of learning how to do it (for \$5.00 I'll send you the secret and a bright, Titanium key chain, while supplies last).

Once I mastered this technique, I managed to blow away the Zylon Master Force, including their upstart leader Chut (short for Chut-

ney I guess—with a name like that he's got to be bad), and managed to get promoted to Captain. That rank, by the way, is only half-way to the top rank of Fleet Admiral, so you get some idea of how difficult this game can be.

STAR RAIDERS II is terrific. For a guy that is not a "computer gamer," this one's for me. It's fast, but requires strategy to survive. Especially the "some like it hot" mid-air gas stop part, but hey, no one said this would be a piece of cake when you signed on. Right?

My only final disappointment was no kiss from Princess Leia, or a back slap and grunt from Chewey after I had wiped out the invaders. I guess the Force wasn't with me—maybe in STAR RAIDERS III.

Necromancer

Review
by
Patrick H. Adkins

NECROMANCER is a fast arcade-style fantasy game written by Bill Williams and released on cartridge by the Atari Corporation for all XL/XE machines. In it (the rear blurb of the package explains), you'll unite the forces of nature to combat an evil wizard "whose black magic darkens the forest and threatens doom to its helpless inhabitants." As Illuminar, "the legendary Druid sorcerer," you will combat Tetragorn, the Necromancer, and his army of ogres and "venom spiders."

In the first stage of the game, the figure of Illuminar appears on a black background, holding a "wisp" (one of the best things about the game, a sort of fireball that can be thrown and guided around the

screen with the joystick) and ten seeds. Your goal is to grow as many trees as possible before the forces of Tetragornsap away all your magical strength. Seeds are planted by moving the wisp to the desired location and pressing the fire button on the joystick. Seeds instantly sprout into enchanted trees. Now an ever-increasing flock of ogres and venom spiders rush from the edges of the screen to try to blight your trees. You must fight them off by casting the wisp and guiding it from beastie to beastie. Withering trees can be healed with a quick touch of the wisp. Occasionally an "eye pod" will appear, worth extra seeds if you destroy them.

The second stage of the game begins when you've exhausted your power or been bitten by too many venom spiders; then you are transported to the hatching chambers of the Salivating Sith Spiders. Now, with your wisp, you begin to

animate the army of magic trees that you grew during the previous round, and send them out to destroy the spider larvae before they mature and attack you. Meanwhile, you must remain alert and guard yourself against the attacks of adult spider. Other dangers face you as well, and there are "Rings and Mysteries" to be gathered.

If you survive—and that will take some doing—you may descend all the way to the fifth level, where you'll find Tetragorn's secret lair and Level Three of the game. Surrounded by graves, you'll face Zombie Spiders, the Mother of Spiders, and Tetragorn himself.

NECROMANCER is a one-person game, so you and your friends will have to take turns. It features a well appreciated pause option, perfect for unexpected phone calls, trips to the refrigerator or bathroom. NECROMANCER was published on disk about six years ago. The graphics aren't really noticeably

superior to those of the older releases. They're good—better than adequate—but they won't leave you breathless. Joystick use is fast and easy, and the wisp—which almost seems to seek out and destroy the ogres on its own, as if attracted to them—works well. The instruction book is Atari's usual eight-page fold-out pamphlet; it isn't elaborate, but it contains everything you need to know.

NECROMANCER is a good, fast, enjoyable game that becomes progressively more difficult the farther you get into it—which is exactly the way a game should be organized. It should provide the dedicated player with an unusual set of challenges for a long time to come.

Patrick H. Adkins is the author of the Ace Fantasy Special Lord of the Crooked Paths. He now writes on an 800XL named Kalliope.


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FINAL ASSAULT

Reviewed by Don Elmore

Can a veritable couch potato conquer the Eiger or the Jungfrau? With a modicum of assistance from Epyx, I can. Almost. Epyx's Final Assault can convert someone suffering from acrophobia into a Horace Benedict de Saussure (the wealthy Swiss scholar who reached the summit of Mont Blanc in 1787).

The game box notes a choice of six different trails, with three levels of terrain on each trail; beginner, intermediate and advanced. "Hat Trick" and "Edge of Fright" are relatively easy to traverse. "Side-Burner" and "Consider Me Gone" are intermediate, and "Footloose" and "Knucklehead" are the hardest. But, if (like me) you have never climbed anything more challenging than to the upper bunk in bunk beds, there is also a game option called the "Training Course." The training trail is a scaled down version of the more serious climbs, with some very accommodating differences. It is a real climb, complete with a glacier to cross and a combination of ice and rock cliffs to scale before you reach the summit. But, you don't have to concern yourself with packing your own rucksack (it is done for you) and you are afforded continuous on-screen prompts to teach you the fundamentals of climbing. And best of all, there are no fatal falls on the training climb.

At the end of the instruction booklet, there is a three page glossary of climbing terms which not only fully explain the equipment you will be using, but also provide the special terms that describe the terrain to be covered. Between the glossary and the training trail, even I was able to actually complete both of the easier climbs and one of the intermediate ones. I seriously

recommend that you take the training climb several times before actually choosing one of the six professional trails. When you decide that you are finally ready for the big time, you must first select your trail(s). You can include up to three climbs in any one trek. I started off with one per trek and am now up to two. After you decide how many climbs you want, you are then provided a screen that shows the six different trails. The routes are clearly marked and the levels of difficulty are indicated by symbols at the bottom of the screen (circles for the two easiest, squares for the two intermediate and diamonds for the two hardest). Using the joystick, move the pointer to the trail you want and hit the fire button and a box appears giving the route's name, elevation in meters, level of difficulty and the estimated time it should take you to reach the top.

After you have selected the route (or routes) you proceed to the supply screen where you supervise the packing of your gear. Your rucksack is automatically supplied with a basic load of provisions and climbing gear...and weighs in at 18 kilograms (39.6 lbs). You decide what you actually need. A long trek will require more food and camping gear, while on a short trek, you can include more luxuries....like a bottle of champagne to open at the summit, for example. As you add (or discard) articles for the rucksack, you will see the weight in kilos change to reflect the total weight after each selection. The instructions recommend that you keep the total weight at no more than 25 kilos (55 lbs), otherwise you are certain to tire out more quickly and much

more likely to slip on a cliff or fall through the ice. There are also dialog boxes that prompt you to choose your departure time (the default is 9:00am), and whether you are making the climb in summer or winter.

Now you are ready for the actual climb, which consists of three basic movements; hiking & jumping, climbing on ice and climbing on rock. All movements are controlled by the joystick and here is where it sometimes gets tricky for me. Hiking (or walking on level ice or ground) is effected by moving the joystick handle steadily back and forth (left & right). When hiking, you are always carrying your ice ax, and by pressing the fire button, you test the ground or ice. If the ice breaks and you are standing before a small chasm (I've yet to find a large one), you can jump over it by pushing up on the joystick handle. Sooner or later you will come to your first ice cliff and the instructions recommend stopping just before getting there and putting your crampons on. I have yet to learn how to stop just before, and usually find myself at the bottom of the ice cliff, ready to start climbing. So, I use a strap (from my pack) to attach myself to the ice wall, put on my crampons and then begin the climb. Climbing the ice cliffs requires a different set of rather intricate joystick moves. Pushing the handle up digs the axes in the cliff wall (and you clearly hear them "clink," as they grip the ice. Pulling the handle down sets the first foot, pressing the fire button pulls yourself up, and finally pulling down on the handle again sets the second foot. It takes some time (at least it has for me) to master climbing an ice cliff. And, if you are on the regular trails, and get careless, you will fall, and you can watch yourself tumble down (spinning head over heels) all the way to the bottom of the cliff. Quite a sight, I guarantee.

Now, the last maneuver, climbing a steep rock face is even more complicated than climbing an ice cliff. The rock face is the ultimate test of your skill as a climber. Usually the first thing you do is take off the crampons....you can't climb rock with crampons, you know. If you don't believe me, try it and see what happens! So, strap yourself to the rock face, open your pack and click on the crampons and then put on your soft shoes and helmet (and take out the chalk). The helmet is to protect you from falling rocks...and they do! At the bottom right of the rock face, are a pair of hands and a pair of feet. You are shown facing the rock, seen from the rear. The fire button selects a hand or foot by continuously cycling clockwise around your extremities. Pick the extremity you want to move and move the joystick handle up or down, depending on whether you want to reach up or down, or step up or down. After you have "set"

both hands and feet, press the fire button while moving the handle in the direction you want to go, and you will move there. Oh, you dodge boulders by moving the handle away from the falling boulder's path. You should always try for the most secure holds, and here is where the extra set of hands and feet icons at the bottom right of the screen come in handy. If any of the extremities are poorly positioned, the icon(s) will be flashing. There are also special instructions for using the rope.

If you packed one.

Throughout the trek, you can "read" the right side of the screen and see how much time has elapsed and how high you have climbed. There is also an icon of the climber's face, and from time to time, it will come to life and shiver or motion to its mouth and do other things. Those are not-to-subtle hints that you are cold, hungry or sleepy...etc. I urge you to play

close attention to the face icon...if it advises that you are cold, you had better stop where you are (use the strap if you are on an ice cliff or rock face), open your pack and put on a sweater or gloves....or whatever it takes to resolve whichever deficiency you are experiencing.

So, graphics? They are particularly good. Playability? Well, I seem to have trouble climbing out of crevasses, and it is also difficult for me to find the most secure hand and foot holds when climbing the rock faces. But, that may be due to my customary suffering of digitary psychomotor retardation. I personally find that this is not one of the computer games that I automatically boot up at the beginning of each computer session...rather it is an enjoyable game that I try from time to time. I think that if you have any interest at all in climbing, or even any curiosity about it, then this game is definitely a worth while investment.

Coming, Next Month in Current Notes:

An Interview with Matt Singer, by H. Earl Hill and Dennis P. McGuire

Freeware and Shareware, by Derek Mihocka

Stellar Crusade, by Milt Creighton

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Librarian Frank Bassett 703-670-8780

MEETINGS: 7-9PM, Community Room, Potomac Branch, Prince William County Library, Opitz Blvd., Woodbridge, VA. Entering Woodbridge from either North or South on Route 1, proceed to t22he intersection of Route 1 and Opitz Blvd. (opposite Woodbridge Lincoln-Mercury). Turn West on Opitz and take first left turn into the library's parking lot. The Community Room is located to your left immediately upon entering the main building. Meeting Dates: Feb 14, March 28, Apr 18, May 16, June 20.

NEW MEMBERS: Initial membership fee is \$10 plus \$1 monthly dues.

Renewals are \$20 per year, payable as of 1 January. Membership includes a subscription to CURRENT NOTES. Join at meeting or send check, payable to WACUG, to David Waalkes, 1302 Oregon Ave, Woodbridge, VA 22191.

M.A.C.C.

Maryland Atari Computer Club

President Jim Hill 301-461-7556
Vice President Dan Honick 301-356-6453
Treasurer John Cromwell 301-356-6453
Secretary Bob Brent 301-254-3896
8-bit Librarian Jim Hill (acting)
ST Librarian Tim Caldwell 301-687-1413
Newsletter Ed. Charles Smeton 301-465-8628
Corresponding Secy. Cam Whetstone 301-486-2609

MEETINGS: last Tuesday, 6:30 pm, Pikesville Library, 1 mi. east on Reisterstown Rd from Exit 20 off the Baltimore Beltway.

NEW MEMBERS: Club Dues are \$22/year and include a subscription to CURRENT NOTES. Join at meeting or send check, payable to MACC, to James Hill, 8591 Wheatfield Way, Ellicott City, MD, 21043.

G.R.A.S.P.

Greater Richmond Atari Support Program

President Mickey Angell 804-744-3307
 Vice President Terry Barker 804-379-8175
 Secretary Tom Marvin 804-233-6155

MEETINGS: 2nd and 4th Thursday, at LaPrade Library, 2730 Hicks Rd.

Dues: \$20 per year (no CURRENT NOTES).

M.A.S.T.

Meade Atari ST Users Group

President Bob Johnson 301-674-8762
 Vice Pres. Keith Drewke 301-551-2662
 Secretary John Corkran 301-255-1674
 PD Librarian Harold Beck III 301-672-1793
 BBS Thomas Hutchinson 301-840-5045

MEETINGS - Third Wednesday of each month in the SeaLandAir rec center on Fort Meade from 1830 to 2100 hours. Call Bob Johnson any evening for further information.

MAILING ADDRESS: All correspondence, including membership renewals, changes of address, etc. should be sent to: MAST, c/o Bob Johnson, 1616B Forrest Ave, Ft Meade, MD 20755.

NEW MEMBERS. Dues are \$27/year and include subscription to CURRENT NOTES and unlimited DL and message activity on the Tangent Line BBS. Send name, address, phone number, and check to above address or join at any meeting.

A.U.R.A.

Atari Users Regional Association

President Niel Johnson 301-540-1794
 8-bit VP Steve Preston 301-972-9632
 16-bit VP Ira Horowitz 301-421-9507
 Treasurer Bob Brock 301-268-2554
 Membership Bill Brown 301-279-7537
 8-bit Librarian Wayne Heiden 301-330-0130
 16-bit Librarian Joe Russek 301-946-7593
 Facilities Home' Reitwiesner ... 301-588-4802

MEETINGS - Third Thursday of each month in the Multipurpose Room at GRACE EPISCOPAL SCHOOL. The school is on the east side of Connecticut Avenue, 1/4 mi. north of the Connecticut Avenue (North) Exit from I-495. Library and swap table sales begin at 7:15, the meeting begins at 7:30. We have separate XL and ST demonstrations. There will be 8-bit and 16-bit door prizes.

CORRESPONDENCE. All correspondence, including membership renewals, changes of address, etc. should be sent to: AURA, P. O. Box 7761, Silver Spring, MD 20910. AURA cannot guarantee CURRENT NOTES subscription fulfillment unless the member provides written confirmation of address changes, renewals, etc. to the address given above.

NEW MEMBERS. Dues are \$25/year and include subscription to CURRENT NOTES. Send name, address, phone number, and check to above address.

WAACE GOINGS ON

Welcome Aboard, MAST!

John Barnes, WAACE Chairman

The Washington Area Atari Computer Enthusiasts welcome the Meade Atari ST Users Group, also known as MAST, to our confederation. The MAST folks are jumping right in with AtariFest and we look for increased support for members on our eastern front. I extracted the following material from MAST's application letter to help introduce WAACE members to the new group:

Meade Atari ST Users Group

Bob Johnson, MAST president

Basic information about MAST is given in the club's box on this page. Membership is open to all Atari ST owners (and 8-bit owners, too, however we primarily serve the ST community) in the area, but for obvious reasons we must cater to the military and civilian DoD employees of Fort Meade and the attendant organizations. (Currently our membership is about 60/40 military-DoD/non-gov't civilians). We do plan for vigorous growth during the coming year...we are a new group, and therefore we are learning as we go, and are expanding at a gradually increasing rate. By the time you get this, we will probably have added a couple of new members to the group who are still "undecided" (we have about the double the membership in unpaid "spectators").

Membership includes a subscription to Current Notes, unlimited DL and message activity on the Tangent Line BBS, a monthly newsletter, discounts at some local Atari dealers, discount prices on our PD software library disks, and of course, personalized assistance from MAST members for most any computer related problem. At our monthly meetings, we demo current and/or important

commercial and Public Domain software and hardware. For example, in February, we have an excellent MIDI demo planned, a demo of Calamus DTP software, and also a demo of Spectre 128, the latest MAC emulator. We also show off the latest in game software at the meetings, and have a hardware/software swap. We are also vociferously anti-piracy, and insist that those we associate with also are aware of the harm software piracy does to the ST community.

We are also tentatively planning a mini-FEST at the Meade PX store sometime this spring, but it is very tentative at this time. If you have any questions, feel free to call. Thanks in advance for your support.

AURA

Niel A. Johnson, AURA President

Greetings from AURA! The new year has seen new interest and a new cabinet, eager to share the fun and usefulness of both the 8-bit and ST/Mega Ataris.

February's meeting theme was "Income Tax Applications with your Atari". Several new members were on hand with the general membership to see demonstrations on many of the programs available for this annual ritual. We look forward to March's "Atari Word Processing--Old and New" theme and April's "Telecommunications" theme.

The new officers encourage members--both new and seasoned -- to attend and participate in AURA's upcoming meetings.

GRASP

Mickey Angell, GRASP President

We had a good turnout at our last meeting on Feb. 9. That is our ST demo night. We demo midi keyboards. We brought in three keyboards so that others could see the

difference. We used Music Studio 88. Our club has 45 members and we had 30 people to show up for this meeting! At the end, we had graphic demos and midi demonstration music with the lights turned down low. It was a nice demo. On March 9, we will demo Falcon. We are planning to hook up a null modem so that two combatants can play or demo. Maybe we will have a little midi music in the background. It sure peps up the demo.

WAACE Executive Board

John Barnes, WAACE Chairman

The WAACE board met on 23 February at the Tysons/Pimmit Regional Library. NOVATARI, AURA, and MAST were represented at the meeting. The Meade Atari ST group's membership application was unanimously approved.

AtariFest '89: Final negotiations are underway with Fairfax HS for a date in October. The available dates include 7 and 8 October or 21 and 22 October. Check into ARMUDIC and GENie for the latest news. Gary Purinton and Bob Johnson are in charge of our advertising campaign. At the moment we are also looking into matters like competing shows, support from Atari Corp, seminar presentations, a show theme, banquet speakers, etc., etc. We welcome suggestions on any of these topics.

NOVATARI Notes

by Bonnie Little, President

Well folks, it looks like a lot of things are happening with Novatari right now. We've barely settled in the new officers when

suddenly we spring a new SYSOP and phone number on those of you who use the BBS. As of April 1 the bulletin board moves (or moved, I don't know when you'll read this) to (703) 450-3916 and we have a new SYSOP, Scott Ogden. Those of you who haunt the board have probably seen his name or met him in chat. He's an active member of Novatari, being a technical advisor and the president of the Sterling chapter! We all thank him for volunteering to do this job. We also thank Ed Seward for all the hard work he's put in over the past 3 years as Sysop and Remote Sysop before that.

Future meetings look exciting. We're looking forward to presentations of an on-line slide creation system, an instructional program on cardiac arrest used by hospitals and emergency medical personnel, and lots more still in the planning stages. I hope to be able to let you know the programs for upcoming meetings in advance starting next month.

Novatari Library News

by Roy Brooks

I never cease to be amazed at the quality of essentially free software we have available to us. There are many programmers out there still working on all kinds of programs. Sometimes programmers like G. Martin of Bethesda, MD will send in programs like his *Yankee 21* and *Holdem Poker* games, other times I get downloads from the commercial online services, but usually I just trade disks with user groups or private individuals. If you have software you want published in our library, go ahead and send it to me (Roy Brooks, 4020 Travis Parkway, Annadale, VA 22003 703/750-0146).

There are 11 new disks listed in the NOVATARI ad. Four games disk were listed in the last issue. The first was #24 *Holdem Poker* including new documentation files on the back of the disk. Games disks #25-#27 are in 1050 enhanced density. I put together several card games with some brief documentation on #25 but you need to know the basic game format (see Holye). The card games vary from monochrome to full color graphics. *Whist*, *Crazy Eights*, *Euchre*, *Solitaire* and *Canfield* are included. Games #26 has three games from David Castell the author of Xlent's *First Word Processor* and *Print Shop Interface*. These games are special arcade type video games; two are variations of *A Voyage Through Time* and the last one is a *Turmoil* type game. The last games disk #27 is a collection of space games: the multilevel *Gauntlet*, *Star Is/lelike*, and several *Defender* like games.

The next category of disks being added are six Utility disks #44-#50. By the way, sometimes buyers will send back a disk that doesn't work or one that they can't figure out how to use. If it doesn't work, we will return a working copy. One has to be able to figure out some programs from very little or, in some cases, no documentation. One disk comes to mind, Utility #43 GAD, Graphics Art Department, has little documentation. But if you experiment, you will learn to use an excellent drawing program (push the space bar to reveal the menu.) I don't have the time or the ability to explain how to use all these programs. Part of the fun and some of the frustration of PD software is figuring out how to get the best use out of these programs.

I'm going to write about the new utility disks but I don't want to forget to mention that we have upgraded Utility #40 Signmaker, now the 1.3 version that has several new features added to a very good Page Designer like program. I'll write a separate article on this program for a later CN issue.

Utility #44 has many ARC-ALF utilities for file compression and decompression. This disk was not put into the Telecom category because these archive techniques should be used for backup storage. Utility #45, MYCOPR 2.1, is a good copy program that is Happy and US Doubler compatible. Utility #46, MYDOS 4.50, is an excellent all density DOS with many features and good documentation (actual disk is in single density.) Utility #47 is a 48K PAD (Pixel Artist Deluxe) drawing program that is excellent and has neat drop down documentation built in. Utility #48 is a Reference Manual for BASIC and ML programmers. It is a double-sided disk with 15 chapters and 3 appendixes of Atariwriter files that print out page after page of neatly formatted documentation and technical information. The unarcalf.com on disk #48 is to be used to unarc these files into three single density disks sides to be printed or viewed. Utility #49 contains a couple hundred Print Shop Icons on both sides. The last Utility is #50, a potpourri of 1020 plotter utilities and printer dumps.

The next time I write I'll have more software to include and I'll try to describe more of our library's wares. One addition for sure will be the new XE DOS--another double density DOS, that is also double-sided, for the XF 551. Keep on computing! If you have suggestions about software that would be good for the library write to me or leave a message on ARMUDIC (703 450-3901).

NOVATARI XL/XE PD LIBRARY

DEMO

1. Miscellaneous
2. Movie Maker Clips
3. Heavy Metal Art
4. Miscellaneous
5. Desktop DOS + Demos
6. VizPics
7. Mandelbrot fractal graphics
8. HITCHHIKER'S GUIDE TO THE GALAXY
9. WIZARD of OZ
10. ADVENTURERS COMPANION

EDUCATION

1. Mathematics
2. Primary Language
3. Teachers' Toolbox
4. Word Builder 1.0
5. Animated stories
6. Geography
7. Bio+Chem with touch typing
8. Basic Math
9. Higher Math and Language
10. The Cell
11. Spelling Bee
12. Math Game
13. WORD GAMES

GAMES

1. Text Adventures I
2. Gambling
3. Simulations
4. Mazes
5. Parlour Games
6. Graphics
7. Action! Games
8. Arcade Look-A-Likes
9. Text Adventures II
10. Text Adventures III
11. Surf's Up
12. Ski King
13. 20 BASIC Games
14. Super Quiz A & B
15. Two Graphic Adventure Games

16. Space Lords
17. Pinball Games
18. Machine Language Games
19. Dandy Dungeon
20. Holdem Poker
21. Americas Cup
22. Boulder Dash Const. Set
23. Wheel of Fortune & Backgammon
24. Yankee 21 (Blackjack game)
25. Card Games
26. Voyages Through Time
27. Space Games

LANGUAGE

1. Fig-FORTH
2. ACTION! source codes (cf. GAMES 7)
3. ACTION! Graphic Demos
4. ACTION! Utility Programs
5. ACTION! Modules #1
6. ACTION! Modules #2
7. BASIC XL-REF Base
8. ACTION! Modules #3
9. KERMIT telecom
10. TURBO BASIC
11. Pascal Sampler
12. Searcher XL Turbo
13. Turbo Basic for 400/800
14. C Language
15. Turbo Basic Documentation

MUSIC

1. TV/MOVIE Themes
2. ROCK
3. JAZZ
4. BASIC with animation
5. Ams Player. 12 Rock Songs
6. Ams Player. 14 Movie/Video Themes

7. Ams Player. 16 Oldies
8. Ams Player. 18 Classics
9. Ram130 AMS Beetles' Songs
10. MUSIC COMPOSER Songs
11. POKEY PLAYER
12. MUSIC MAJOR

UTILITY

1. MISCELLANEOUS introduction
2. Printers
3. DOS 2.5
4. Directory & Label Printer
5. Graphics Trilogy
6. Copymate XE
7. SCOPY sector copier
8. Translator Disk
9. 256K Upgrade
10. Daisy-Dot NLQ
11. Dos 2.6
12. MACHDOS 2.1
13. Print Shop Editor
14. Easy Find
15. Print Shop Icons
16. TEXTPRO 1.1
17. Print Shop Icons
18. Touch Edit
19. DOS 4.0
20. Graphics
21. 130XE upgrades + Utilities
22. HI-RES 130 (graphics)
23. Rainbow DOS
24. Font Master
25. 3-D CAD
26. ADELAIDE SYMBOLIC DISASSEMBLER
27. DB's & Spreadsheet
28. Graphic Utilities & Pics
29. String Magic
30. Print Shop Icons
31. Hacker's Toolkit
32. Weekly Scheduler
33. Textpro 2.5r (telecom)

34. Print Shop Utility
35. Monitor/Debugger
36. Diet & Nutrition
37. General Ledger
38. Super Copiers
39. Atari Writer Drivers
40. Signmaker 1.3
41. Billboard Maker
42. Daisy Dot II
43. Graphics Art Department
44. ARC-ALF Compression Utilities
45. MYCOPR 2.1
46. MYDOS 4.50
47. Pixel Artist Deluxe
48. Atari Reference Manual
49. Print Shop Icons
50. 1020 Printer Utilities

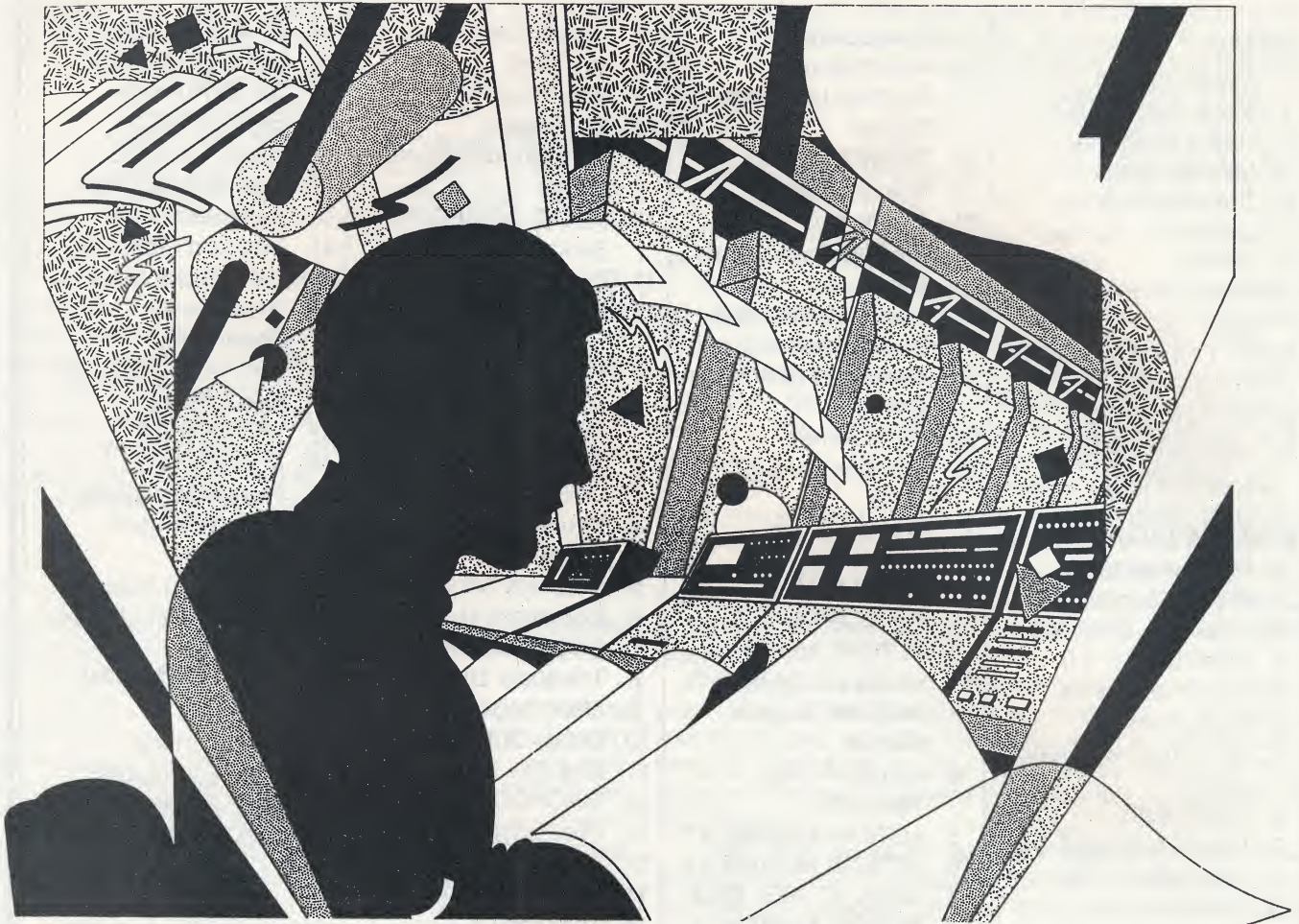
TELECOMMUNICATIONS

1. 850 Interface
2. 835/1030 Modem
3. MPP Modem
- 4A. AMODEM 7.2
- 5A&B Chameleon Terminal Emulator
6. 1030&850 Express (3.0 & 2.1)
7. Data Comm
8. AMIS XM10 BBS program
9. AMODEM 7.4 + Rverter
10. FOREM XE BBS
11. AMODEM V7.52

The price for mail orders is \$3 per disk plus \$1 for postage and handling for every 3 disks. Send checks, payable to NOVATARI, to

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Fleet Street Publisher 2.0 allows such advanced text features as the ability to type directly onto the page, or to load text from any ASCII word-processing file. This includes files

created on IBMs and compatibles. Word processing control codes can be stripped out automatically.

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Aussie Joker Poker	\$33.45
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Dungeon Master Sequel	\$19.95
(Chaos Strikes Back)	
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Word Writer ST	\$50.95
Zany Golf	\$27.45

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Dr. T's Midi Software

Copyist I	\$59.95
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Copyist III	\$239.95
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Level II	\$209.95
MRS v1.1	\$38.95
Phantom	\$178.95
Samplemaker	\$179.95
Tunesmith	\$94.95

Accessories

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Mouse Pad	\$5.95

ST Books

3D Graphics Program	\$20.95
Basic Training Guide	\$12.95
Disk Drives Inside/Out	\$20.95
GEM Program Reference	\$15.95
Internals	\$15.95
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GTS 1000	\$199.95
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MFD 1440	\$289.95

European ST Software

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Bionic Commando	\$29.95
Captain Blood (Euro)	\$34.95
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SEPTEMBER 1988

- #263: ST XFormer, V2.2.** Atari XL/XE Emulator program.
#264: ST XFormer Utilities.
#265: VANTERM, Ver. 3.7. Terminal Emulator w/xmodem, ymodem, vidtex graph.
#268D: The Planets. 51 pictures provide graphical tour of the solar system.
#269: Mono Games No. 6. (Anduril, Ballerburg, Diamond Miner, Invaders, Snafu Principle. Plus monochrome emulator program.
#270: Quiz-Plus. Let your ST teach you. sample lessons. (C) No MEGA.

OCTOBER 1988

- #271: Lambert Pics No. 3.** 12 Degas elite pics.
#272: ALF Pics. 11 digitized pics of Alf.
#273: Games No. 15. Hacmanm, Jumpman, Escape (C)
#274: Games No. 16. Midway Battles, Hero! V1.0, (C)
#275: Air Warrior, V0.8. Flight simulator program for private practice or multiplayer aerial combat on GENie.
#276: Disk Cataloger and Label Printer. Shareware by Saraware.
#277D: GNU C Compiler, by Free Software Foundation, (C) 1988.
#278: Atari ST Applications Programming (C). Source and programs from book by same name.
#279: Atari SLM804 Laser Disk. Diabol Emulator 1.2, GDOS Boot 1.2, LCamelot font.

NOVEMBER 1988

- #280: Lambert Pics No. 4.** 18 Degas Elite pictures.
#281: Manual Maker. Use GDOS and GDOS fonts to produce attractive manuals.
#282: Damonoid. (C) Arcade game. NO MEGA.
#283: Adventure Games. System 5,

- Once A King, El Bozo's City Out of Bounds.
#284: Desk Acc No.3. Mouse doubler, mouse editor, address book, Double-click software's Clock, Formatter, Stuffer.
#285D: Star Trek (AVS).
#286D: California Raisins (AVS).
#287D: Miami Vice (AVS).
#288, #289, #290, #291: GNU C Source Code: Four disk set includes Make and Other Utilities, Assembler, Compiler, header files, DIFF source and a collection of documentation.

DECEMBER 1988

- #292: Lambert Pics No. 5.** Spectrum: 2kittens, blackbird, chipmunk, fox, owl; Degas Elite: drag108, dragcol, dragcovl, dragon2.
#293: Dungeon Master Maps.. Maps and a cut'n'paste spell chart to aid you in your quest in Dungeon Master.
#294: Kid Games No. 3 (C). Kid Publish and Kid Shapes.
#295 Sticker (M). German disk labeling program with graphic images.
#296: Stacatto. Musical quiz game. Just listen or try and guess the song names as quickly as possible.
#297: Amaze. Maze Construction Set. Draw an image boundary and then solve on screen or print out your maze.
#298: C-Source Disk No. 9. The source code to ST Xformer V1 and V2. (The Atari XE Basic emulator).
#299: Pascal Disk No. 5. Disk labeling program and referencing pixels on the screen.

JAN/FEB 1989

- #300: Dual Term.** Telecommunication program by Tony Belding. Text capture or upload, xmodem, automatic dialing AND display of both VT52 and ATASCII graphics.
#301D: LDW Power Demo. Demo of LDW spreadsheet includes folder of VIP/LOTUS/LDW templates. DS disk.
#302: Lambert Pics No.6. (C) 17 Degas

Elite pics (3Dship Bogart, F15 F18_3 Frtank Gablec2 Goali Hansolo, House Kingkool Kitty Klingnon Monument Porsche Spidey2 Strohs Sun.

- #303: Uniterm, Ver 2.0E.** Terminal emulator for the VT102/220 and Tektronix's 4014 terminals. Includes Xmodem and KERMIT protocols. Files ARC'd. [Replaces CN #88]
#304: Electronic Jigsaw Puzzle V1.2. (C) puzzle program for Neo, Degas, and Tiny pictures (color only). Includes 14 pictures that can be divided into 25, 64, or 100 pieces.
#305 & 306: Modula2 Language. 2-disk set contains full working implementation of Modula2 language (note: Manual not included but can be obtained from author.)
#307D: Calamus Demo. (M) Demo version of newest DTP program from Europe. Includes sample documents (some ARC'd). 1Mb, DS disk.
#308D: Runaway Cat. (C) AVS disk with a PD player so you can see animation and hear music at the same time. (Note: player also works with: CN #285, 286, 287.) 1Mb, DS disk.
#309D, #310D, #311D: TEX: Text Document Processor. (M) 3-disk set contains TEX document processing language. Drivers provided for EPSON compatible 9-pin dot matrix printers only. Req monochrome, 1Mb, DS

MARCH 1989

- #312: NEO/DEGAS CONTEST WINNERS.** 21 award-winning pictures: tribar, dragon, midearty, city2042, cougar4, distill, dungeon1, egore2, fighter, forest, gilbert, house (shown below), millyw, nitemoon, panzer, plantfal, pyramid, sailing, shuttle, snowcat, wayne.
#313: ZOLTAR. (C) Arcade game similar to Galaxian but gives the user the opportunity of defining your own alien ships, their flight patterns and speed. Produced with

GAME BOX #1 (Color). 30+ games: Aggravation, Azarian, Backgammon, Barn Yard, Black Jack, Boggle, Box the Dragon, Checkers, Daleks, Darts, Escape, Hac-Man, Hero!, Jigsaw Puzzle, Jumpster, Kid Music, Kid Notes, Kid Sketch, Kids ABC, Mastermind, Monopoly, Mr. Potato, Poker, Roulette, Scour Four, Sensori, Shanghai Demo, Slots, Stone Deluxe, Triple Yahtzee, Twixt, Wheel of Fortune.

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CLIP ART BOX #1. 240 screens of clip art

CURRENT NOTES PD BOXES

plus a variety of clip-art and picture utilities.

[Includes CN #158, 159, 160, 239, 245, 246, 247, 248, 249, 250]

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PASCAL/MODULA2 BOX #1. Sample programs to help you learn these languages.

[Pascal: CN #31, 49, 93, 111, 177, 299; Modula2: CN #31, 83, 92, 110, 232]

SHOW-OFF BOX #1. Balls & Boinks, Oxygen, Shiny Bubbles, Spheres, CN Movie, Steely Boink, ST-Replay, Space Probe, Cyberscape, Play It!, California Raisins, Miami Vice. (CN#78D, 90,105, 128, 129, 134, 151, 173, 218, 286, 287) REQUIRES DS DRIVE.



CN PD Boxes include 10 disks and a plastic case to hold your disks. They are \$35 each plus \$2 S&H. Order from CN Library, 122 N. Johnson Rd, Sterling, VA 22170.

STOS Basic.

#314: BULLET TRAIN. (C) Arcade game: pilot your train fast enough to avoid pursuing train while watching out for dead-end tracks and box cars blocking your way (that's what the "bullet" is for!). Produced with STOS Basic.

#315: ORBIT. (C) Arcade game similar to Breakout and Arkanoids. Includes wide variety of different "bricks" and screens. Define and save your own screens. Produced with STOS Basic.

#316: CASINO-KENO. (C) Version 1.0 faithfully simulates keno games in Nevada allowing the player to mark on a keno card up to 15 numbers out of 80. Creates and saves personal account information to disk so play can continue later. By Glenn W. Ulrich.

#317: PROHIBITION. (C) Arcade game where you have to be quick on the draw and accurate as you try and make your way through the ganster infested city streets. By Tsunoo Rhlity.

#318: ASSISTANT CHEF. (C) Just the recipe program you've been looking for. Holds up to 300 recipes (42 included). Sort by recipe number, name, food group, food type, disk type, rating. Add to and edit recipes. View and/or print.

#319D: GENERATION GAP DEMO. (C or M) Demo version (10 record limit) of Generation Gap Genealogy program by Flying Pigs Software Double-sided disk..

#320: PRINT MASTER NO. 1. Includes Borders6, Borders7, Borders8, and Borders10 for PM and PM+ and a folder of PM_ART icons. Utilities allow conversion of PM to Degas and back as well as PM catalogue program to view/print an alphabetized catalogue of any PM files.

APRIL 1989

#321: ST WRITER, VER 3.0. The latest version of ST Writer has added some terrific new features:

- ☆ The "Save" feature in GEM mode has been altered to prevent saving to an undesired filename. You must first "Save As ..." before "Save" is activated.
- ☆ You can now load multiple printer drivers. XYZZX.DAT is the default. Others can be stored on the same disk. Users select the appropriate printer driver from a list.
- ☆ Save ASCII is now possible. Files thus created have a carriage return/line feed at the end of every line. Top and bottom margins are set automatically to 0, and the left to 1.
- ☆ Non-ST Writer ASCII files now load much, much, much faster.
- ☆ You can now output ALL of the 256 characters in the character set to your printer. This means you can now imbed your printer control codes right in the text just like AtariWriter.
- ☆ You may now directly load 8-bit AtariWriter files from a disk into ST Writer Elite, and they will be converted to ST Writer format preserving all formatting data.
- ☆ The bug preventing deletion of a tab stop in GEM mode has been eliminated.
- ☆ Non-ST Writer file containing less than 24 bytes can now be loaded.

#322: SUB_CAL. A subset of EL_CAL: The Elementary Calculator, a commercial product, available from Debonair Software.

Sub_Cal is a calculator with some extras. It will compute arithmetic expressions entered in a human-readable form as e.g. $SQ(SIN(34-2X)-COS(34+2X))-ATN2(B,B-2^A)$. If needed, the expression can then be modified and recomputed.

Sub_Cal will also compute definite integrals (Romberg algorithm), derivatives (three-point square approximation) or solve equations (bisection method). It will also solve polynomial equations up to the third degree. A simple plotting feature is included as well.

The program uses the familiar GEM user interface and comes with an on-line help. It runs on any Atari ST with color or monochrome monitor.

The full version of EL_Cal which includes statistical distributions and user-defined functions, data buffers (allowing for processing the results of other programs), histograms and scatter plots, least squares up to the 6th degree, general data fitting with any function and function optimization. The on-line help in Sub_Cal lists the complete set. If, however, you are a more casual user, Sub_Cal may be adequate for your needs.

EL_Cal, Debonair Software, P.O.Box 521166, Salt Lake City, UT 84152-1166. The price (\$44) includes shipping and one update. (Program by J.A. Wrotniak)

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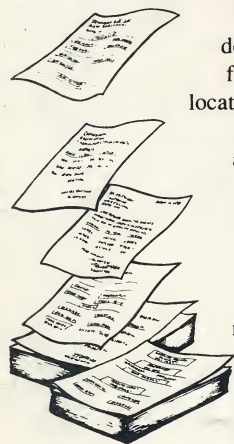
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dBMAN V's features:

- ✓ dBASE II and dBASE III Plus compatibility
- ✓ Easy-to-use, pull-down menu interface to create, add, edit, and report database information
- ✓ 320 programmable commands and functions
- ✓ Password protection and data security at field level
- ✓ Easily transport your dBASE III data files and programs between Atari ST and PC's
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- ✓ Create a GEM pull down menu, mouse menu and file selector.
- ✓ Run GEM application from dBMAN
- ✓ Program debugger/editor. And more...

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- ✓ 9 group levels
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Specifications:

- ✓ Field types: Character, Numeric, Date, Logical, Memo
- ✓ Maximum characters per field: 254
- ✓ Maximum number of records per database: 2 billion
- ✓ Maximum number of index files: no limit
- ✓ Maximum record size: 4000 bytes
- ✓ Numeric precision: 17 digits

System Requirements:

- ✓ Atari 520, 1040, or MEGA ST with one floppy drive and 480K free RAM.



VersaSoft Corporation

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